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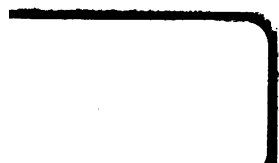
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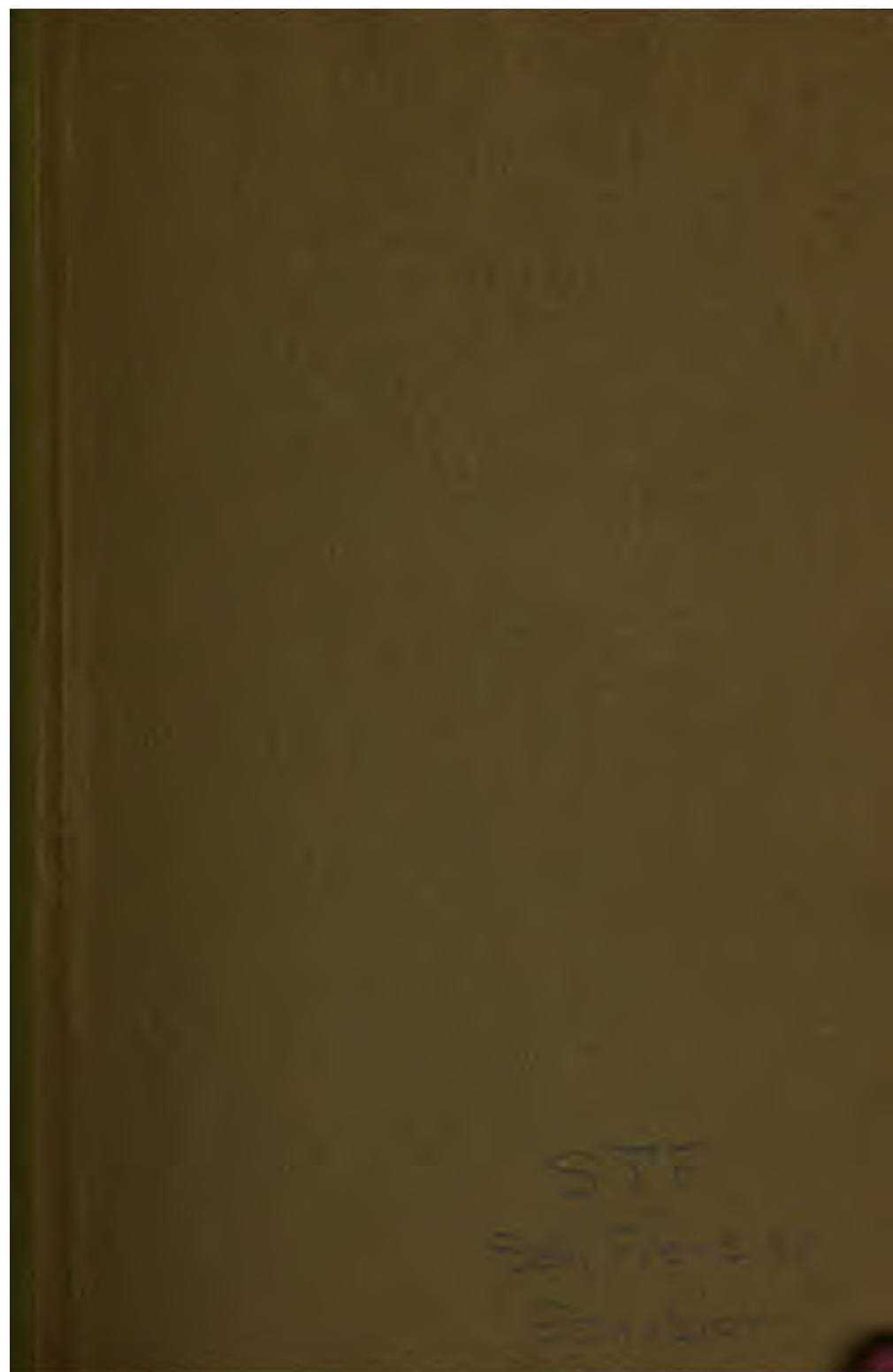
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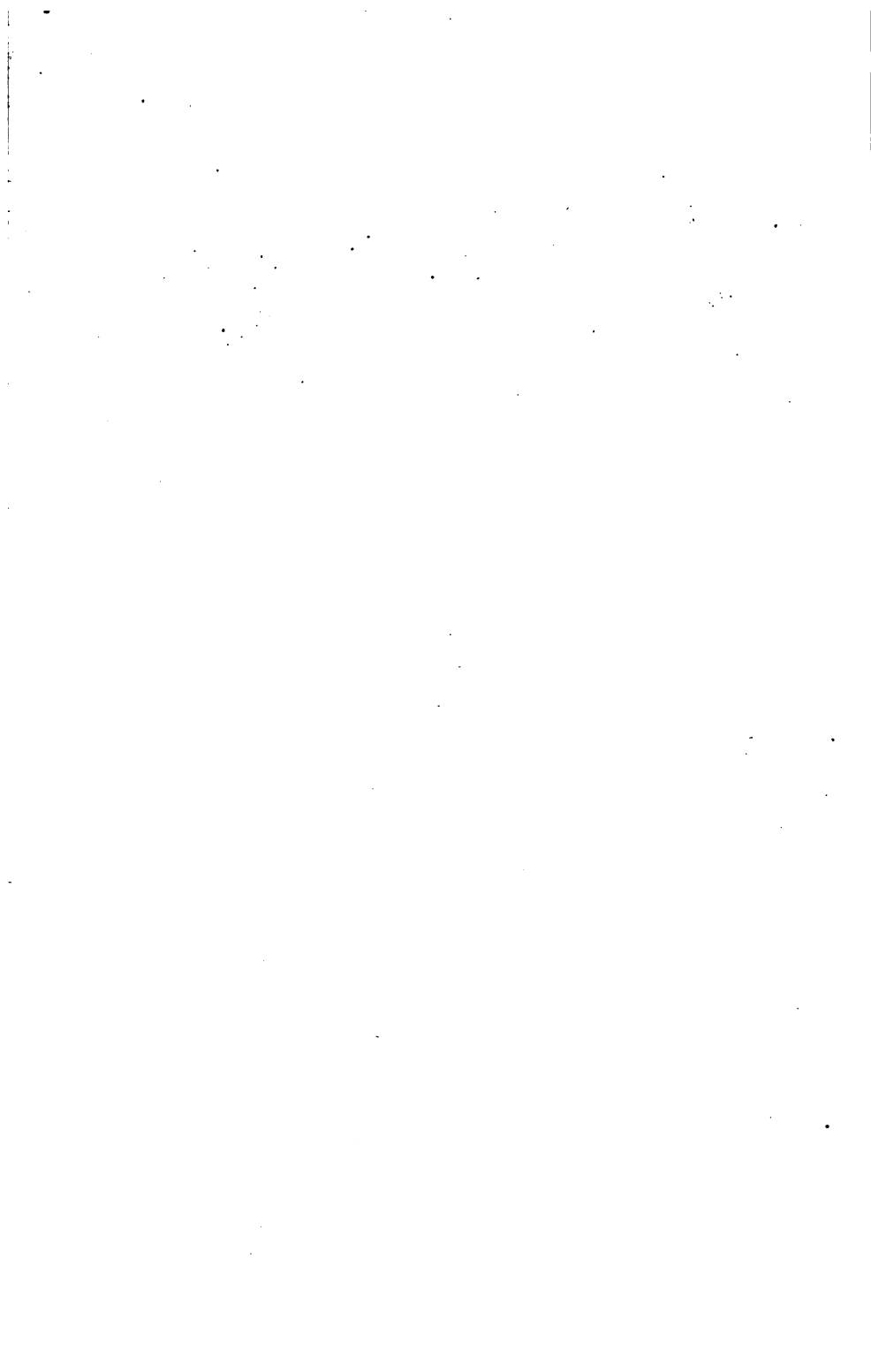












199911

DEPARTMENT OF PUBLIC SCHOOLS,

CITY AND COUNTY OF SAN FRANCISCO.

THIRTY-SECOND ANNUAL REPORT

OF THE

Superintendent of Public Schools,

FOR THE

SCHOOL YEAR ENDING JUNE 30, 1885.



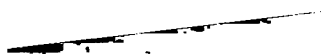
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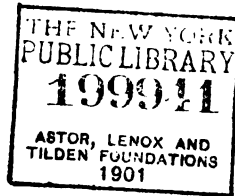


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# BOARD OF EDUCATION.

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J. F. ENGLISH.....	313 Davis street	1717 Washington street.
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THOS. O'BRIEN.....	New City Hall	1709 Broderick street.
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GEO. T. SHAW.....	840 Fourth street	17th avenue, South S. F.
D. STERN.....	Brunswick House.	143 Sixth street.
J. P. H. WENTWORTH.....	320 Sansome street, room 61	2320 Folsom street.

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Superintendent of Common Schools.....	A. J. MOULDER, New City Hall Residence, 812 Bush street.
Deputy Superintendent of Common Schools.....	JOS. O'CONNOR, New City Hall Residence, 1032 Mission street.
Inspectress.....	LAURA T. FOWLER, New City Hall Residence, 622 Nineteenth street.
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Assistant Secretary.....	GEORGE BEANSTON, New City Hall Residence, 1316 Webster street.
Assistant Secretary.....	FRANK G. ANDREWS, New City Hall Residence, 922 Van Ness avenue.
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## BOARD OF EDUCATION.

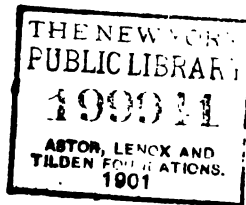
### STANDING COMMITTEES.

CLASSIFICATION—Deane, Stern, English, Wentworth, Hoitt, Moulder.  
RULES AND REGULATIONS—Hobe, Beach, Deane, O'Brien, Hoitt, Moulder.  
CREDENTIALS AND QUALIFICATIONS OF TEACHERS—Shaw, Pollitz, O'Brien, Hoitt, Moulder.  
SCHOOLHOUSES AND SITES—English, Beach, Shaw, Dithmar, Hoitt.  
SALARIES—Pollitz, Wentworth, Deane.  
FURNITURE AND SUPPLIES—Culver, Hobe, Shaw, Hoitt.  
FINANCE—Stern, Wentworth, O'Brien.  
JUDICIARY—O'Brien, Culver, Dithmar.  
PRINTING—Dithmar, Pollitz, Culver.  
JANITORS—Beach, English, Stern, Hobe, Hoitt, Moulder.  
VISITING—Wentworth, English, Shaw, Beach.

---

### OFFICE HOURS FOR SCHOOL BUSINESS.

IRA G. HOITT..... 405 Sansome street  
Tuesdays and Saturdays, 4 to 5 P. M.  
C. W. BEACH..... 10 Montgomery street  
3 to 4 P. M. daily except Saturdays, and 9 to 10 A. M. Saturdays  
J. H. CULVER..... 31 Post street  
3 to 5 P. M. Mondays, 9 to 10 A. M. and 3 to 5 P. M. Fridays  
DR. C. T. DEANE..... 131 Post street  
Daily, 1 to 4 P. M.  
A. C. DITHMAR..... Goodyear Rubber Co., 577, 579 Market street  
Daily, 3 to 4 P. M.  
J. F. ENGLISH..... 313 Davis street  
Wednesdays and Fridays, 4 to 5 P. M.  
G. J. HOBE..... Room 42, Masonic Temple  
9 to 11 A. M. and after 4 P. M. daily  
THOS. O'BRIEN..... 1709 Broderick street  
6:30 to 7:30 P. M. daily at New City Hall, 3 to 4:30 P. M. Saturday.  
ED. POLLITZ..... 403 California street  
Tuesdays and Thursdays, 4 to 5 P. M.  
GEO. T. SHAW..... 5 Post street  
4 to 5 P. M. Tuesdays and Fridays, 6 to 7 P. M. Tuesdays and Saturdays.  
D. STERN..... Brunswick House, 148 Sixth street  
Mondays and Fridays, 4 to 5 P. M.  
J. P. H. WENTWORTH..... Room 61, 320 Sansome street  
2 to 4 P. M. Saturday.



REPORT  
OF THE  
Superintendent of Common Schools.

*To the Honorable the Board of Supervisors  
of the City and County of San Francisco :*

GENTLEMEN :—In compliance with law I have the honor to submit herewith the Thirty-Second Annual Report of the Superintendent of Common Schools for the fiscal year ending June 30, 1885.

In my last report I gave the reasons why, in my opinion, the amount to be received from the State for the support of schools for this fiscal year must needs be less than the estimate of the Auditor (\$495,600), in spite of the fact that our census showed an increase of 4,968 schoolable children entitled to apportionment.

I regret to say that my predictions were fulfilled, and that your already scanty and insufficient appropriation of \$750,000 for the support of schools during the year, fell short nearly \$6,000, by reason of the Auditor's over-estimate. The amounts actually apportioned to this city by the State were as follows:

Received in August, 1884.....	\$97,064 66
Received in February, 1885.....	392,670 67
<hr/>	
Total received from State.....	\$489,735 33
Auditor's estimate.....	495,600 00
Excess of estimate over receipts.....	5,864 67

At the time the Auditor's estimate was under discussion before your Finance Committee, I urged that it was unreasonable, because, notwithstanding the fact that the increase of the number of census children in San Francisco was very large, to wit: 4,968; yet other counties had increased by an equal, and in several instances, by a much larger per centage. For example, comparing the census of last year with that of the year before, while our county showed an increase of 8 per cent., the increase in Fresno was 8 per cent., in Humboldt, 9 per cent.; in Lake, 8 per cent.; in San Luis Obispo, 9 per cent.; in Shasta, 9 per cent.; in San Diego, 10 per cent.; in San Bernardino, 10 per cent.; in Los Angeles, 13 per cent., and in Sacramento, 23 per cent.

The amount appropriated annually by the State for the support of schools is about the same every year. The ratio of apportionment is obtained by dividing the whole amount to be apportioned by the total number of census children in the State. This gives the *per capita* allowance for each child, from which it is apparent that if the per centage of increase in the number of schoolable children is as large in the other counties as in San Francisco, the only effect will be to reduce the ratio, so that our increase of nearly 5,000 census children will not necessarily justify the Auditor's estimate, and the result proves that it did not. In addition, I may state that a certain portion of the revenue paid into the State School Fund has been heretofore derived from the interest on State and County bonds, the principal of which now amounts to \$2,045,400. Most of these bonds have for years yielded from 7 to 10 per cent. interest per annum. I regret to learn that many of them have matured and the amount has been paid into the School Land Fund during the past two years. In consequence, the sum of \$572,817.86 of that fund lies idle and uninvested in the State Treasury and the usual revenue from this large amount will this year be cut off, and to that extent the total to be devoted to the support of schools, by the State, will be reduced. I am further informed on reliable authority that the collections of poll taxes throughout the State, which are paid into the State School Fund, have decreased this year.

# OF COMMON SCHOOLS.

9

From this source the following amounts were received by the State and apportioned to the several counties during the fiscal year ending June 30, 1885:

In August, 1884.....	\$144,476 89
In February, 1885.....	157,661 49
Total from poll taxes.....	<u>\$302,138 38</u>

## ESTIMATES FOR THE NEXT FISCAL YEAR.

For the coming fiscal year the Auditor estimates that our School Department will receive the sum of \$505,000 "from the State, from rents, and from personal property."

From the last source mentioned nothing can be expected. The total rents per annum due to and collected by the department amount to \$4,541.

This fixes the Auditor's estimate of the apportionment to be received from the State at \$500,459, or \$10,723.67 more than was received from this source for the current fiscal year.

He bases his opinion upon the fact that the number of school-able children entitled to apportionment has increased from 63,029 in 1884, to 69,000 in 1885, or a little over 9 per cent. I am strongly in hopes that his estimate will be realized, and for these reasons: During the present fiscal year the number of census children in San Francisco, on which the State apportionment was based, amounted to  $\frac{63}{235}$  of the total number in the State. For the coming fiscal year our proportion, under the census of June, 1885, will amount to  $\frac{69}{235}$ , or  $\frac{1}{4}$  of the whole number. Even conceding that the total amount to be apportioned by the State next year shall fall \$35,000 short of the amount distributed this year, this increase of  $\frac{2}{235}$  of the whole amount ought to give us at least \$10,000 more than last year. It may do even a little better, as I have reason to know at this writing that the apportionment to San Francisco, for August, 1885, will be \$104,190, as against \$97,064 66 for the same time last year, or an actual increase of \$7,125.34.

To realize the Auditor's estimate we must receive from the State at the next apportionment, in February, 1886, the sum of

\$3,598.33 more than we received in February, 1885, or we must obtain a total of \$396,269, and to secure this, the whole apportionment to all the counties in February, 1886, must amount to \$1,432,654. This is \$35,582 less than was apportioned in February, 1885. Should this falling off exceed \$35,582, the Auditor's estimate will be correspondingly reduced, and with it will be reduced the amount of the appropriation made by the Supervisors for the support of schools during the next fiscal year.

I have entered somewhat into detail on this subject, because the experience of the past two years shows that the financial question is of deep interest, as well to Supervisors and School Directors as to the 820 employees in the School Department.

#### CONDITION OF THE SCHOOL BUILDINGS.

I have heretofore called attention to the pressing need of more school buildings in certain districts of the city to accommodate the rapidly increasing number of children seeking admission. This pressure does not exist in the northern portion of the city, nor in the outside districts, but unfortunately the schools in those localities, where possibly some room might be found, are so remote from the neighborhoods where the population is most dense and the demand for school facilities most pressing that, practically, they furnish no relief. I alluded in my last report to the surprising increase in the number of schoolable children in the two most populous wards of the city. Since then another census has been taken in the month of May, 1885, and the results are still more surprising.

The number of children in the city between 5 and 17 years of age was:

In 1882.....	55,878
In 1883.....	58,061
In 1884.....	63,029
In 1885.....	69,000

Here is an increase of 13,120 children in three years.

In 1882 there were in the Eleventh Ward 17,020 schoolable children; in 1885, 21,564; increase, 4,544. In 1882 there were 11,948 children in the Twelfth Ward; in 1885, 14,445; increase,

2,497. Total increase in these two wards alone in three years, 7,041, or more than half the total increase in the city. For their accommodation two new school houses, the "Cleveland," of 12 rooms, the "Moulder," of 8 rooms, were built and completed in December, 1884.

The former was immediately occupied by the children of 12 classes of the Eighth street Primary School, and four classes belonging to the same school that had long been occupying outlying shanties were transferred to the old rookery on Eighth street that had been vacated.

The Moulder School was built on the site of the Page and Gough Street School, and the eight class rooms of the former were at once filled with the children who crowded the latter. In effect, but little room was provided for new-comers and the relief from the pressure was scarcely appreciable.

There is now urgent need for two school buildings in the Eleventh and Twelfth Wards to accommodate a portion, at least, of the increase of 7,041 children in these two Wards. They can not be built in all of next year, for no means have been provided. You, gentlemen of the Board of Supervisors, are every year in a financial strait, and while recognizing the necessity of additional school accommodations, plead your inability to furnish the means to supply them. I believe you have done all in your power, under existing circumstances, to assist the School Department. But it is pertinent to ask, can you ever, under those circumstances, build any more school houses, no matter how large the city may grow? I do not see how you can!

But if we must needs do without new buildings, common business sense, backed by an inexorable necessity, demands that the means should be provided at least to preserve and keep in repair the old structures now in use. In my last report I portrayed, in as vivid colors as I could command, the dilapidated condition of many of those ancient rookeries. Some persons—even members of the new Board of Education—thought that the picture was overdrawn, and that I had exaggerated the condition of affairs for the sake of producing an effect.

To remove all doubt upon the subject and to ascertain, by a critical examination, the real condition of our school buildings,

the Committee on "School Houses and Sites" of the Board of Education undertook, in the early part of this year, a thorough and systematic inspection of all the buildings under the control of the Department.

This committee consists of Messrs. C. W. Beach (Chairman) Geo. T. Shaw, Jno. F. English, A. C. Dithmar and President Ira G. Hoitt. They are, all of them, intelligent and practical men of business, fully qualified to judge of the condition of school property and of the amounts needed to put it in proper repair. They divided the city into districts, each Director being assigned to an inspection of a certain number of the school houses. They went to work systematically and devoted much time to the investigation.

Each Director (except the President of the Board, an *ex-officio* member), made a detailed report to the Chairman and the whole Committee united in a report to the Board.

Their statements are entitled to the fullest confidence and present an authoritative exhibit of the condition of school buildings in the city of San Francisco at this time.

I cannot better inform you upon this subject, as it is my duty to inform you, and, through you, arouse public attention to the pressing needs of the Department, than by incorporating these reports, stripped of much of their detail, in this, my Annual Report.

#### REPORT OF DIRECTOR A. C. DITHMAR.

SAN FRANCISCO, Feb. 22, 1885.

I herewith submit my report of the school houses allotted to me for examination in regard to permanent improvements and repairs, for the coming fiscal year, 1885-86.

Under Class "A" I enumerate those repairs which are urgently necessary. Under "B," I name such improvements as should be made as soon as possible, believing them necessary and advantageous wherever recommended. I therefore respectfully report:

Class A—Rincon Grammar School, Silver street, between Second and Third streets.

This building requires painting, both inside and out. The yard needs new planks and the entrance from Vassar Place should be repaired and new steps put in, for the accommodation of both this school and the Longfellow Primary.

Class B—There should be a wing built on this school, on the south side, giving two more class rooms and an office for the Principal—the present office being utterly unfitted for the purpose. The school should also have a larger yard, which can only be obtained by purchasing private property on Silver street, which purchase I hereby recommend. Rubber stepping should be put on all the stairs.

Longfellow Primary School, Silver street between Second and Third streets.

This school building needs painting both inside and out. All the class rooms in the building, and also the outside class rooms, require whitening; hand-rails are required on the stairs, and the stairs need support from the lower hall. Shelves and ventilation are required in the lower closets. This school requires more yard room and the yard needs replanking.

In regard to obtaining more yard room, it can only be secured by purchasing private property on Silver street, referred to in Rincon Grammar School's report. In reference to this school, I would say in regard to all schools that I have visited, that rubber stepping should be put upon the stairs, as it will deaden the noise and save the repairing of the stair-cases every few years—\$500.

Starr King Primary School, Bryant street between Sixth and Seventh streets.

The yard in this school needs replanking; the front fence requires painting; the stair-cases need new steps and rubber placed thereon; furniture needs revarnishing.

Lincoln Primary School, Fifth street near Market.

This building needs painting and whitening. The two-class-room building needs lathing and plastering, having never been finished. Two lots should be bought fronting on Jessie street, which are private property, to afford free ingress and egress in case of fire or panic, as under present conditions the school will become a deadly trap under either of the above contingencies. The stepping in this building should also be covered with rubber.

Boys' High School, Sutter street between Gough and Octavia.

This building requires whitening, also painting within and without; the blackboards need repairing; the yard wants replanking. A wing should be added to this building for a laboratory, also an office for the Principal—\$2,000.

A—Spring Valley Grammar School, Broadway street near Polk street.

Both yards must be replanked immediately, as they are dangerous to both life and limb of the children. The building must be repaired and painted immediately.

Union Street Kindergarten, No. 512 Union street.

Glass broken in, windows and building out of repair, but as it is rented property it should be attended to by the landlord.



Spring Valley Primary School, Union street near Franklin street.

Both yards must be replanked, as the planks are rotten and will not hold the nails. We must have sheds in the girls' yard to protect them from inclement weather; new fences are required; new stair-cases are absolutely necessary; underpinning requires immediate attention. A new roof is required for this school building. The building requires painting within and without, not having been painted for eighteen years; new flooring is required in several rooms; new window sashes are wanted in nearly every window; ceilings require new plastering; doors are in bad condition and should be opened outward; they open inward at present, contrary to law.

Lincoln Grammar School, Fifth street near Market.

Much replanking necessary in the yard; twenty windows out of order; the whole building requires whitening; the sewerage of this building requires reconstruction, as the present system is injurious to the health of teachers and pupils.

Tehama Primary School, Tehama street between First and Second streets.

New stairs or the old ones repaired; new outside steps on the girls' side; all the walls should be whitened; all the blackboards need repairing; new planking on Clementina street; some of the rooms should be replastered.

Union Primary School, corner Filbert and Kearny streets.

This school house should be painted; wainscoting and furniture should be varnished, not having been varnished for eighteen years; new window sashes required, as the sashes are rotten and the glass falls out of the frame; the boys' stairs must be repaired at once, as they are dangerous; the walls require whitening. The Principal recommends a neutral tint as beneficial to the eyes of the pupils.

North Cosmopolitan Grammar School, Filbert street between Taylor and Jones street.

This building requires painting on the outside; the plastering in the hall on the South side should be repaired; blackboards throughout the building should be repaired; boys' closet should be enlarged and extended across the north side of the yard.

Washington Grammar School, corner Washington and Mason streets.

The building needs painting within and without; the class rooms need whitening; furniture should be varnished; ten window sashes are absolutely necessary; new floors must be laid in all the class rooms, as the present floors are full of holes and very dangerous; the sheds want new roofing; the fence in front of the building should be repaired or replaced by a new one; the plastering is in a very bad condition, liable to fall at any time.

After careful investigation I make the above report in regard to the school

houses assigned to me, and believe that every item under class "A" is urgently necessary.

Respectfully submitted,

A. C. DITHMAR,

Member Committee School Houses and Sites.

#### REPORT OF DIRECTOR GEORGE T. SHAW.

I have visited and examined the following school houses, and report as to their condition as follows:

South End School, Williams street near Henry.

Blackboards need general going over, cracked in many places; wainscoting up stairs does not meet floor, needs a quarter round around the base of both rooms; yard needs about two thousand feet of planking; estimate of repairs for year \$100.

South San Francisco School, corner Fourteenth avenue and L street.

Building needs repairing, but is not so bad as many others; yards need from three to five thousand feet of planking; blackboards in bad order, especially in basement, and a new one needed in lower hall.

Potrero Primary School, Minnesota street between Napa and Sierra streets.

In excellent order, both houses and yard; only a few yards of plastering in one hall.

Powell Street Primary School, Powell street, between Washington and Jackson streets.

House needs repairing; roof and gutters painting and fixing; some of the stairs in bad order; blackboards also in bad order, cracked, etc.

Broadway Grammar School, Broadway street between Powell and Mason.

Needs a new upper floor laid upon the one now there; five or six rooms need whitening; back yards need replanking, about five to seven thousand feet needed; blackboards in lower room badly used up, the paper being torn and going to pieces.

Greenwich Street Primary School, Greenwich street between Powell and Leavenworth.

Building needs painting badly; yards need a large amount of repairing—five to seven thousand feet; desks want repolishing; blackboards overhauling and repainting.

Garfield Primary School, Union street between Kearny and Montgomery.

Did not visit, but saw the school several weeks ago and it seemed to be in very fair order. No report.

Jackson Street Experimental, No. 116 Jackson street.

Building a rattle-trap concern, containing up stairs Mrs. Cooper's kindergarten class (2); not much can be done except to keep it from going to pieces. Expenses estimated \$75.

Turk Street (12) Primary School, Turk street between Buchanan and Webster streets.

Needs repainting, but can run another year; boys' water closet needs refixing and an asphaltum floor put in and trough or gutter deepened; vault needs cleaning at once, there being sticks in it; stairs on girls' side need new treads.

South Cosmopolitan Grammar School, Eddy street between Polk and Van Ness avenue.

Needs repainting and whitening; stairs on boys' side need new treads; yards need about ten thousand feet of new plank; sand at back (in alley), should be removed, or a high picket fence built across back of lot.

Hayes Valley Primary School, Grove street near Larkin.

Building needs repainting; water-closet out of order; floors in hallways need repairing; blackboards cracked and full of holes and broken places.

Clement Grammar School, Geary street between Jones and Leavenworth.

Roof needs fixing and repainting; building needs repainting badly; stairs on boys' side new treads; yard needs replanking, at least seven thousand feet of lumber required; blackboards out of order (usual complaint).

Grant Primary School, Golden Gate avenue near Hyde.

Building and yard in good shape and need scarcely any repairs; Principal would like folding doors between two rooms on second floor; expense about \$100.

Moulder School, corner Page and Gough streets.

New and in general good order; think but a small amount required for the year.

Respectfully submitted,

GEO. T. SHAW.

## REPORT OF DIRECTOR JOHN F. ENGLISH.

The undersigned respectfully submits the following as his report of what repairs and alterations are needed in the schools assigned to him, and also makes an approximate estimate of the cost of said repairs and alterations:

Valencia Street School.....	Paint outside and in, and whitening rooms.....	\$500 00
Shotwell Street School.....	" " " " " " " ".....	400 00
Sanchez Street School.....	" " " " " " " ".....	350 00
Noe and Temple Street School...	" " " " " " " ".....	300 00
Bernal Hights School.....	" " " " " " " ".....	300 00
Eighth Street Primary School...	" " " " " " " ".....	400 00
Mission Grammar School.....	" " " " " " " ".....	500 00
Columbia Grammar School.....	" " " " " " " ".....	400 00
Franklin Grammar School.....	" " " " " " " ".....	400 00
Haight Primary School.....	" " " " " " " ".....	100 00
Mission Primary School.....	" " " " " " " ".....	300 00
West End School.....	" " " " " " " ".....	250 00
Ocean House School.....	" " " " " " " ".....	200 00
Laguna Honda School.....	" " " " " " " ".....	200 00
Fairmount Primary.....	" " " " " " " ".....	500 00
West Mission School.....	Raising roof and adding five rooms.....	10,400 00
Point Lobos School.....	Raising, putting in new foundation, and painting said school.....	1,500 00
Repairs to planking and replanking yards in above schools.....		1,000 00
Other repairs now needed to put schools in order.....		5,500 00
Estimate cost of repairs on above schools for one year after the above work has been done.....		3,000 00

## ESTIMATE COST OF NEW BUILDINGS NOW ABSOLUTELY NEEDED.

Erection of an eight-class building to take the place of the rooms now rented for the Lobos Avenue School.....	16,000 00
Purchase of lot for same.....	5,000 00
Total estimate.....	<u>\$47,500 00</u>
Total recommended as above.....	\$47,500 00
Deduct estimate for new building, Lobos Avenue.....	\$21,000 00
Deduct estimate for enlarging West Mission Primary.....	10,400 00
	<u>31,400 00</u>
Leaves balance needed for urgent repairs.....	<u>\$16,100 00</u>

Respectfully submitted,

JOHN F. ENGLISH.

## REPORT OF THE SUPERINTENDENT

RECAPITULATION OF AMOUNT NEEDED FOR URGENT  
REPAIRS.

ESTIMATE OF COST OF REPAIRS TO THE SCHOOL BUILDINGS OF THE DEPARTMENT "URGENTLY NECESSARY" FOR THEIR PROPER CARE AND PRESERVATION, AND TO PUT THEM IN A REASONABLY FIT AND SAFE CONDITION FOR OCCUPANCY.

BUILDINGS INSPECTED BY DIRECTOR DITHMAR.

NO.	BUILDINGS.	AMOUNT.
1	Rincon Grammar— Painting outside and inside; re-planking and repairing yards and fences, and painting roof.....	\$964 00
2	Longfellow Primary— Painting outside and inside; whitening walls of class-rooms, etc.; hand rails and supports for stairs; shelving in closets; re-planking and repairing yards.....	770 00
3	Lincoln Primary— Painting outside and roof; lathing and plastering two rooms; whitening class-room walls.....	548 00
4	Lincoln Grammar— Painting outside and roof; painting, graining and whitening inside; re-constructing sewerage.....	2,700 00
5	Starr King Primary— Re-planking and repairing yards; repairing and painting fence.....	400 00
6	Boys' High School— Painting outside and inside and roof; whitening walls of class-rooms; re-planking and repairing yards.....	1,900 00
7	Spring Valley Grammar— Painting outside and roof; painting inside and whitening; repairing yard (now dangerous); repairing and painting fence.....	1,650 00
8	Spring Valley Primary— Re-planking and repairing yards; painting outside and inside; whitening class-rooms; sheds in girls' yard; new roof; new flooring in three rooms; new windows; repairing plastering.....	1,950 00
9	Tehama Street Primary— Whitening walls of class-rooms; re-planking and repairing yards; re-plastering walls; repairs to outside steps; repairing blackboards....	720 00
10	Union Street Primary— Painting outside and inside; new window sash; repairs to stairs (now dangerous); whitening class-rooms.....	970 00
11	North Cosmopolitan Grammar School— Painting outside and inside; painting roof; whitening and repairing walls; repairing blackboards; repairing and enlarging water closets.	950 00
12	Washington Grammar School— Painting outside and inside and roof; whitening walls of class-rooms; new floors; new roof on sheds; new window sash; new front fence; repairing plastering on walls.....	2,450 00
13	Whittier School— Painting outside and roof; painting and whitening inside; repairs to yard; repairs to gutter and roof; repairs to foundation of building.	1,150 00
Total immediate and urgent repairs on 13 buildings recommended by Director Dithmar.....		\$17,072 00

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## BUILDINGS INSPECTED BY DIRECTOR BEACH.

NO.	BUILDINGS.	AMOUNT.
1	Golden Gate Primary— Painting outside and inside; whitening walls; repairing roof and conductors; new front fence; new lunch-room for teachers; raising and repairing yard.....	\$1,650 00
2	Emerson Primary— Painting roof; repairs to fence and yard.....	275 00
3	Girls' High School— Painting outside and fence; painting ceiling and halls; whitening walls of class-rooms; repairing fence and tree boxes; painting roof.....	1,425 00
4	Hayes Valley Primary— Painting outside; new floor in hall entrance; painting roof.....	600 00
5	Hayes Valley Grammar— Painting outside, inside and roof; whitening class-rooms; new stair treads; repairing fence.....	1,330 00
6	Denman Grammar— Brick bulkhead in rear of yard; new tin roof; repairing and painting fence; painting building outside.....	2,500 00
7	South Cosmopolitan Primary— Kalsomining class-rooms; repairing stairs; forty feet new shed in yard; front fence to be repaired and painted; repairing vaults and sewerage; new tin roof; system of bells throughout building; raising and securing foundation to small building.....	1,475 00
8	Redding Primary— New stairs and treads; new mudsills and underpinning; new roof; painting outside and inside; whitening walls.....	1,540 00
9	Hamilton Grammar— Painting outside and inside; whitening walls; re-planking both yards; repairing vaults, etc. ....	2,600 00
10	Lombard Street School— Painting outside and inside and roof; whitening walls of class-rooms....	330 00
11	Pacific Hights School— Sewerage arrangements; cement on basement; sheds in yards and seats in basement; wind-break of west entrance; painting roof.....	875 00
	Total needed for buildings examined by Director Beach .....	\$14,600 00

## REPORT OF THE SUPERINTENDENT

## BUILDINGS INSPECTED BY DIRECTOR SHAW.

NO.	BUILDINGS.	AMOUNT.
1	South End School— Re-planking and repairing yard; repairing floors and blackboards. ....	\$200 00
2	South San Francisco School— Painting outside; re-planking yards; repairing blackboards (1 new one).	570 00
3	Potrero School— Repairing plaster and walls .....	50 00
4	Powell Street Primary School— Painting outside and roof, and repairing gutters; repairing stairs and blackboards. ....	650 00
5	Broadway Grammar School— New floor, upper story; new planking in yards; whitening class-room walls; repairing blackboards. ....	525 00
6	Greenwich Street Primary School— Painting outside; re-planking yards; repairing desks and blackboards..	850 00
7	Garfield Primary School— Painting outside; whitening walls in class-rooms; replanking yard. ....	520 00
8	Irving School— Painting outside and inside and roof; whitening walls; repairing blackboards. ....	1,020 00
9	Turk Street Primary School— Painting outside; repairing water-closets; new treads on stairs. ....	510 00
10	South Cosmopolitan Grammar School— Painting outside and inside and roof; whitening walls; new treads on stairs; new planking in yards; new fence on rear of lot. ....	1,600 00
11	Hayes Valley Primary School— Painting outside and inside and roof; whitening walls; repairing floors and blackboards. ....	920 00
12	Clement Grammar School— Painting outside and inside; painting and repairing roof; new treads on stairs; re-planking in yards; repairing blackboards. ....	1,255 00
13	Grant Primary School— Doors between rooms on second floor. ....	150 00
14	Buena Vista School— Painting outside and in and roof; whitening walls. ....	380 00
Total for buildings inspected by Director Shaw. ....		\$9,200 00
" " " " Dithmar. ....		17,072 00
" " " " English .....		13,100 00
" " " " Beach. ....		14,600 00
Grand Total. ....		\$53,972 00

## REPORT OF THE COMMITTEE ON SCHOOL HOUSES AND SITES.

SAN FRANCISCO, March 4, 1885.

TO THE HON. BOARD OF EDUCATION,

*Gentlemen:* Your Committee on School Houses and Sites herewith report as follows:

When we accepted the special trust and care of the school houses of this city, we fully realized the importance of the trust reposed in us, and, to some extent, the immense labor necessary to properly perform the duties thereto attendant.

Knowing that the annual appropriation for the School Department had been decreased, while the fixed salaried expenses had necessarily largely increased from formation of new classes, etc., we expected to find the buildings neglected and much out of repair. For the purpose of finding out and knowing the actual condition of the various schools, we subdivided the work—each member taking about sixteen buildings for his personal examination, so that at the present time every school building in the Department has been inspected and its condition and requirements reported on by some member of this Committee, as will be shown by their detailed reports herewith submitted. The general result of our examination has been, that with a very few favored exceptions, we find the Public School Buildings of the Department in a most neglected, dilapidated and ruinous condition.

We find that many of them have not been painted for from ten to eighteen years, some of them falling to pieces from neglect and decay—tin roofs without paint for so long that the rust has eaten through until they are like honey-combs; class room walls blackened by smoke and by the accumulation of dirt for years; floors in class rooms worn through and planking in many of the yards rotten and broken full of holes, making them positively dangerous to the lives and limbs of the thousands of children turned loose therein.

We have referred above to the main buildings only, but we find that in the rear of many of them there have been erected, to supply the demand for more classes, many one-story shanties without any pretense to finish or to health, or comfort of the children forced to occupy them—unpainted, unplastered and entirely unfit for use as school rooms. We submit that the present condition of the school buildings which the children of the city are obliged to occupy is a disgrace to our people and our city, and being known and not remedied, becomes a crime.

We realize that the necessary work of putting the many buildings in proper repair—such as any good business man would do, if they were his private property—is more than we can expect to do during the ensuing year, but no effort should be spared to do all possible in our power. We therefore recommend as follows:

First. That the Finance Committee be instructed to add to their estimate required by this Department for the ensuing year the sum of fifty thousand



\$50,000) as an "Urgent Necessity" appropriation, to be used towards putting the school buildings in a reasonably fit and proper condition of repair.

Second. That the sum already recommended by said Committee for incidental repairs and permanent improvements during the coming year, remain as heretofore recommended by that Committee.

Third. That the amount recommended by the Finance Committee for the purchase of sites and the erection of new buildings be increased from sixty thousand dollars to the sum of seventy-five thousand (\$75,000) dollars.

Respectfully submitted,

C. W. BEACH,	}	Committee.
GEO. T. SHAW,		
JOHN F. ENGLISH,		
A. C. DITHMAR,		
IRA G. HOITT,		

This is indeed a striking picture of dilapidation and decay. To read it, one would suppose it was describing the buildings of some ancient, impoverished and half-deserted mining town.

The minute details contained in these reports, you, gentlemen of the Board of Supervisors, cannot doubt, and, I am sure, do not doubt.

You were furnished with a copy of these reports at the time you were making estimates for the support of the School Department for the next fiscal year. You admitted that the \$50,000 asked for by the Committee was a case of "urgent necessity," and yet you had but one reply, "Non Possumus! Non Possumus!" and plead your pledges as the only justification for your refusal to make the necessary appropriations. The plea is, perhaps, a good one, but must this state of things go on forever, until the school buildings fall in ruins about the heads of the children, and stand for all time as striking monuments of fidelity to official pledges?

I am sometimes reproached by good citizens with bringing discredit upon our city by presenting every year so realistic a picture of neglect and ruin. But if I do not paint the picture, who will? And if nobody, how then can the people be aroused to an appreciation of the situation, and demand of their servants the proper remedy?

Bear in mind, gentlemen, that the report of the Committee on Schoolhouses and Sites describes the condition of the school

buildings in February, 1885. As you were unable to appropriate even a dollar for repairs during the next fiscal year, it follows that the dilapidation described, must go on, increasing and intensifying, for at least a year and a half more !

This state of affairs is supposed to be defended on the ground of economy in the management of the city's finances. But is it economy? On the contrary, is it not reckless extravagance?—just the extravagance and folly of the parsimonious ship-owner who “spares the tar and loses the ship?”

For example, many of the tin-roofs have not been painted for so many years that they are now honey-combed and porous as a sieve. It would cost, perhaps, \$25 to paint and preserve such a roof. It will cost several hundreds to put on a new one.

In conclusion, the Committee pronounce the situation a “disgrace to the city, and a crime, if not remedied.”

And yet, for at least a year and a half longer, the disgrace must continue, and the crime may fructify into disastrous consequences:

And just here it is pertinent to call attention to the very large amount paid annually by the city of San Francisco into the State School Fund in excess of the amount received from that Fund.

In the year 1884, San Francisco paid into the State School Fund, on account of taxes collected from property and from poll taxes.....	\$617,041
We received from the State, for account of Public Schools, the sum of \$493,518—this amount being derived from <i>all sources</i> of School income by the State, including interest on Bonds, etc., but as the total income of the State from all sources exceeds the sum derived from property and poll taxes by 7 per cent., we deduct said 7 per cent. from the total of \$493,518 received by San Francisco, which leaves.....	\$458,978

Excess of payments over receipts.....	\$158,063
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This is according to law, but it may well be asked if such a law is equitable. Under its operation our own school-houses are going to rack and ruin, and thousands of our children are running wild in the streets for the want of new school-houses, while we are paying, every year, \$158,068 for the erection of new buildings, and the repair of old ones, in the other counties of the State!

It is an anomalous state of things, that our people should be so heavily taxed to furnish school accommodations to children in remote localities, while our own are suffering for actual necessities.

Could we use this \$158,068, annually, for our own city schools, we could, in one year, build six large and spacious new school-houses of 12 class-rooms each, and in a few years entirely replace the ancient shanties and rookeries with elegant new structures.

#### NEW SCHOOL-HOUSES.

The last Board of Supervisors appropriated from the surplus at their disposal at the end of the fiscal year, the sum of \$40,000 for the erection of new school buildings.

Steps were immediately taken to carry their intentions into effect. Two new school-houses were built, completed and occupied in December, 1884, at a total cost, including additions and alterations, and the necessary furniture and equipment, of about \$45,000. The plans were prepared and the work superintended by Mr. T. J. Welch, the accomplished Architect of the Department, and I can point to these structures with pride, and do not hesitate to say that they are model school-houses, perfect in their interior arrangements, and provided with all the requisites for health and for comfort.

The following detailed description of the buildings by the Architect will show what care was bestowed in securing all the essentials of a model school building:

#### THE CLEVELAND SCHOOL, HARRISON STREET.

A Twelve Class-Room School Building, North side of Harrison Street, between Tenth and Eleventh Streets.

The location of the lot rendered it advisable to place the building in the rear, in order to keep the yards out of shadow of the building. This, at the same time, conduces to a much lessened annoyance from street noises.

The other principal objects were to confine the building to two stories in height; to obtain a sunny exposure for all class-rooms, and to have the windows in all rooms on one side only, with but small piers or mullions between.

This arrangement is in accordance with the experience of the best French and German authorities on this subject, and has been adopted in those countries in all modern school buildings.

On each side of the building there is an inclined passage 11 feet wide to the entrances. These lead to a corridor 10 feet wide, communicating with all the class-rooms and cloak-rooms.

The stairs are arranged central, but in two separate flights.

The arrangement of the class-rooms on the second floor is the same as below—four of them facing South, one to the East, and one to the West, and a cloak-room with each.

The Principal's room, 11x16 feet, is located at the back of the stairways on the second floor; the passage or gallery around the stairs affording the Principal a convenient position to see all the classes above and below as they enter and leave the rooms.

There is a teachers' room on the first floor, also on the second floor.

A drinking fountain is conveniently placed in the corridor on each floor.

The four class-rooms in the front of second floor are connected by sliding-doors, 22 feet wide, forming one large assembly room.

Above the windows of each class-room is a galvanized iron duct, with perforated cove face, connecting with a ventilator on the outside for an inlet of fresh air.

The heating stoves, placed in the corners near the windows, also have a fresh air inlet at the back. This will prevent draughts from the windows to the heated stove.

The vitiated air, containing small particles of organic matter, eventually, as it becomes cool, forms a stratum near the floor. To this organic floating matter, being in every state of decomposition, appertains the great danger of breathing vitiated air, and it becomes of the utmost importance to effectually remove the same. For this purpose two large ventilators have been placed in each class-room at the base of wall opposite the windows, and one in each cloak-room, connecting by separate ducts from each room with a central ventilating shaft of galvanized iron 4x6.6.

The vitiated air is thus drawn out at the floor through the above mentioned ducts by aspiration in the ventilating shaft—the heat from the smoke-flues running up the shaft, causing the necessary draught in winter, and the favorable higher temperature on the outside performing the same function in warmer weather.

For additional summer ventilation and cooling of the rooms, another galvanized duct, with perforated cove face, is placed at the ceiling on the wall opposite the windows, connecting with ducts to ventilating shaft, or running separately to roof. All inlets and outlets are provided with registers to regulate the temperature of the rooms.

There are two rooms in the basement, 50x57 each and 10 feet high in the clear, with the floor on a line with the yard, and sliding sash doors along the entire front—these rooms to take the place of sheds in summer, and on cold and rainy days the same can be heated and will form a covered playground. The heated air from stoves in basement also ascends through openings in the ceiling to the corridors.

## REPORT OF THE SUPERINTENDENT

The exterior of the building is finished in a plain but substantial manner. A pleasing and characteristic effect is obtained, however, by the judicious arrangement of the windows and other constructive features.

## THE MOULDER SCHOOL.

Page and Gough Streets.

Eight Class-Room School Building, on the S. W. corner of Page and Gough Streets.

The principal object in arranging the building was to have sunny class rooms, which has been accomplished by the disposition of the rooms—all having a Southerly exposure.

The two entrances are on Page street, leading to the corridor—having a separate staircase at each end to second floor.

There is no basement in this building, but all the other accommodations are similar to those in the Harrison street building. The windows here are also on one side of the rooms, and the heating and ventilation are on the same principle.

## A GRATIFYING EXHIBIT.

A comparison between the statistics herein contained for the fiscal year ending June 30, 1885, with those for the year ending June 30, 1883, will be interesting, as showing the progress of our city and of our schools in two years.

Total Census Children in 1885.....	69,000	
“ “ “ “ 1883.....	58,061	
Increase.....		10,939
Number of Children between 5 and 17 years who have attended Public Schools at any time during the school year 1885.....	43,465	
Number of Children between 5 and 17 years who have attended Public Schools at any time during the school year 1883.....	37,235	
Increase.....		6,230
This increase measures the capacity of 104 new classes of 60 pupils each.		
Number born of native parents, 1885.....	22,752	
“ “ “ “ 1883.....	17,493	
Increase.....		5,259
Native born—one parent foreign—1885.....	15,469	
“ “ “ “ 1883.....	11,903	
Increase.....		3,566

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Native born—both parents foreign—in 1885 .....	50,973	
“ “ “ “ “ in 1883.....	50,458	
Increase .....		515
Number Children foreign born, 1885.....	1,274	
“ “ “ “ 1883.....	2,637	
Decrease.....		1,363
Number of births during year 1885.....	3,715	
“ “ “ “ 1883.....	2,482	
Increase .....		1,233
NOTE.—The statistics of births as taken by Census Marshals are altogether incomplete, but they are probably as correct for one year as for another.		
Pupils enrolled in High Schools, 1885 .....	1,319	
“ “ “ “ 1883.....	1,206	
Increase .....		113
Pupils enrolled in Grammar Schools, 1885 .....	14,230	
“ “ “ “ 1883.....	13,463	
Increase .....		767
Pupils in Primary Schools, 1885 .....	24,695	
“ “ “ 1883.....	23,394	
Increase .....		1,301
Pupils in Evening Schools, 1885 .....	3,021	
“ “ “ 1883.....	2,659	
Increase .....		362
Total increase in the enrollment .....		2,543
NOTE.—Many more could have been enrolled had there been room for them. Substantially, no additional accommodations were provided for them during the two years.		
Total number of Teachers, 1885.....	734	
“ “ “ 1883.....	687	
Increase .....		47
Total enrollment in all Schools, 1885.....	43,265	
“ “ “ “ 1883 .....	40,722	
Increase .....		2,543

Average number belonging to all Schools, 1885.....	33,850	
"        "        "        "        "        1883.....	32,432	
Increase.....		1,368
Average daily attendance, 1885.....	32,183	
"        "        "        1883.....	30,827	
Increase.....		1,356

## DEPARTMENT TEACHING IN GRAMMAR SCHOOLS.

In the Hamilton Grammar School an experiment is being made the results of which will be looked for with keen interest by all connected with the Department. It is, in effect, to assign to some one teacher the exclusive duty of instructing, in as many grades as possible, in some particular study instead of teaching all the branches required by the course of study, in one particular grade.

The Principal is confident of success. Sufficient time has elapsed up to the date of his report, herewith submitted, to encourage him.

Even if successful, the plan cannot be extended beyond the Grammar Schools, and there are so many inherent difficulties, that it cannot possibly be applied except to Grammar Schools as well organized and as well administered as the Hamilton School. It requires enthusiasm in the Principal and very cordial co-operation of all the teachers, and these cannot always be counted on. The weak point in the system would appear to be, the many changes of teachers in charge of a class each day, each remaining in charge but one hour at a time, and the consequent inability to obtain control over the pupils and secure proper discipline. This difficulty was at first encountered, but I am assured by some of the teachers that, as the children have become accustomed to the system, the difficulty has nearly disappeared, and in time will not be worthy of notice.

There can be no doubt of the proposition that if one teacher only is held responsible for the proficiency of all the pupils in all the Grammar grades, in some one branch (Geography, for instance), she will apply herself diligently to the study of the best methods of teaching that branch, and will make special preparation and use special expedients to insure success. In

this way, it may be, a class of experts will be trained, whose aggregate labors will produce better results than if each taught all the branches in one class of only one grade.

The success of the experiment will be tested at the end of the year by a competitive examination between the pupils of the Hamilton School and those of two or three of the best Grammar Schools in which the old system of instruction has been retained.

#### REPORT OF PRINCIPAL OF HAMILTON GRAMMAR SCHOOL.

SEPTEMBER 18, 1885.

HON. A. J. MOULDER, *Superintendent of Schools, San Francisco:*

DEAR SIR—In compliance with your request, I most respectfully submit the following report:

Soon after the present Board organized, the Chairman of the Classification Committee requested my opinion in regard to such a division of the work that each teacher might have fewer studies, and, as far as possible, those most congenial. Realizing its superior advantages, I not only gave the plan an unqualified endorsement, but asked permission to test its merits, which, after consultation with yourself and the President of the Board, was granted.

Eight months of most careful consideration and three months of actual experience fail to discover a single flaw in the system; on the contrary, I am more than ever convinced that it is the true method of Grammar School instruction—owing to the great number of subjects taught.

At the beginning of the present term the work of the First and Second Grades—four classes—was as equally as possible divided among the teachers of those grades. To Mrs. Wood, the Vice-Principal, was assigned Arithmetic and Drawing; to Miss Morton, United States History, Geography, Natural Philosophy and Political and Domestic Economy—so classed; to Miss Baldwin, Reading, Composition, Spelling and Word Analysis; to Miss Strauss, Grammar, Physiology and Penmanship—actual teaching time in each class, sixty-five minutes per day.

The work of the Third Grade—three classes—is distributed as follows: To Miss Stallman, Arithmetic and Drawing; to Miss Bunker, Reading, Geography and Penmanship; to Miss Wentworth, Grammar, Composition and Spelling—time, eighty-seven minutes.

In the Fourth Grade—four classes—Mrs. Steele teaches Grammar and Composition; Miss Crowley, Arithmetic; Mrs. Sisson, Reading and Penmanship; Miss Landstadter, Spelling, Geography and Drawing—time in each class, sixty-five minutes.

In the Fifth Grade—three classes—Miss Hobe teaches Arithmetic and



Penmanship; Mrs. Tiernan, Geography, Reading and Drawing; Miss Mathieson, Grammar, Composition and Spelling—time in each class, seventy-five minutes.

You will observe that, with the exception of the four highest classes, the work of each teacher has been confined to her own grade in order to avoid monotony by allowing her at least two favorite studies, and also on account of the greater familiarity with the requirements of that grade.

The almost universal, and very just, complaint of the teachers throughout the Department is the time and labor expended in drill-work which properly belongs to the lower grade, before the pupils are prepared to begin the legitimate work of the grade to which they belong.

Beginning, therefore, with our lowest grade, the Fifth, I purpose, with the co-operation of the several teachers, so to harmonize and perfect the work that each succeeding teacher may find it unnecessary either to modify the instruction already given or to devote more than a reasonable time to review.

To make assurance doubly sure, the teacher of each department must spend at least two days of every month in teaching the corresponding studies in the grade next below.

That the teacher may the better adapt her instruction to the capacity of the pupils, I have so classified them that the best of each grade are in Division A, the next best in Division B, and so on. Each having a common interest in all pupils of her grade, no wrong is done to any teacher by transferring a pupil from a higher to a lower division.

When the best and the poorest of any grade are together, two necessary evils result—the poorest scholars are often hurried over the work before they have a proper understanding of the subject, which always leads to indifference and discouragement; and the brightest are often betrayed into habits of idleness which always lead to mischief. The teachers are all agreed that in no other way have they ever been able to get as good work from the children. Idlers stand in wholesome dread of Divisions B and C, while the studious pupils of the lower Divisions have a strong incentive to study.

As to discipline, our work has never been so easy. The most troublesome boy dreads the concurrent testimony of several teachers against him; hence I seldom find it necessary to resort to extreme measures.

No teacher being allowed any form of punishment, her duty as well as her responsibility ceases the moment the pupil is sent to the Principal.

Another advantage of our new system is, that each teacher having fewer studies, and those the most congenial, can give more time to a proper preparation of the subjects taught; thereby making her work more interesting to herself, easier to teach, and decidedly more pleasant as well as profitable to her pupils.

The teacher who knows the most is not always happiest in imparting instruction, and few of even the best are equally successful in every study; hence, those most distasteful are more or less neglected, the pupil being ex-

pected to make his promotion on the teacher's *favorite* studies. As now arranged, every branch receives due attention and the work in each class is uniform.

Except in the case of those pupils who are not doing the work of their respective grades, I hope to abolish that most pernicious "credit system" to which every other consideration on the part of both teacher and pupil has heretofore been subordinated. Student-life has higher aims than the mere obtaining of just so many credits—and too often without regard to the method of securing them. Consequently I have directed that on our Report Cards the several studies be marked excellent, good, fair or poor, without special regard to any particular per cent. For the protection of the teacher, however, and also for the satisfaction of the parents, pupils likely to be put back are subjected to a monthly examination, and the per cent. obtained in each lesson is recorded in *red ink*. If the child's progress is satisfactory, it makes no material difference whether his general average is 89 or 90 per cent.

A great saving in the use of paper, diminished labor in correcting the work, increased time for instruction and study, are only a few of its advantages; while the almost irresistible temptation to cheat is avoided.

The wisest step the Board has yet taken was to allow pupils to be promoted on the responsibility of the class teacher; for no set of examination papers is half so thorough a test of a pupil's proficiency, as the judgment is much larger when an official examination is the test, than when left to the teacher's judgment.

At least one year more will be required for a thoroughly practical test of the New System; and it is but simple justice to credit each teacher with a faithful discharge of the duties assigned her.

By the close of the school year we confidently expect better results than can possibly be attained under the old system.

Respectfully, your obedient servant,

WM. A. ROBERTSON, Principal.

#### DEPARTMENT CLASSES.

There are many interesting subjects upon which, did space permit, I should like to comment; but I cannot permit the opportunity to pass without a few words of approval of the working of the so-called "Department Classes." But three have been established to date in the Department—one in the Pacific Heights School, one in the Tehama Street School and one in the Lincoln Evening School. All in charge of these classes concur in declaring that their influence upon both pupils and schools is salutary and beneficial.

Miss Hannah Cooke, Principal of the Pacific Heights School, in which a Deportment Class has been in working order for nearly three years, thus describes its operation and effects:

THE DEPORTMENT CLASS IN PACIFIC HEIGHTS SCHOOL.

HON. A. J. MOULDER, *Superintendent of Schools*:

DEAR SIR—At your suggestion that I furnish some data and report the general success of the Deportment Class connected with the Pacific Heights School, I now give an account of my stewardship.

The original germ of the class came into notice under the Board of 1882, when I assumed control of the so-called Jackson Street School. The Chairman of the Classification Committee, upon my report, gave me an extra teacher for twenty-six pupils, when the whole school numbered but 145. These twenty-six were of such a type that the necessity of their segregation was admitted, and this was considered by the Board the best aid they could render.

In September, 1884, on moving into the new building, the attraction of a new house drew largely on the floating pupils of neighboring districts, and a large class gathered in our building, representing some of the most dangerous characters I ever dealt with, including representatives all the way from the accredited street gangs to the milder type of young America at the head of the family. At this time, by accident, I was brought before the Joint Committees of Classification and Rules, when I made a statement of affairs in my building, and especially of this disturbing element. You will recollect you very readily entered into the idea, and, after a brief review of similar cases in our public schools, made the motion, which was at once seconded, that a deportment class be formed. A teacher was appointed to take charge of it, and from that time till the present the class has shared my constant attention, I feeling convinced it would ultimately solve the great problem of our schools. And let me say right here, an innovation so marked would naturally raise opposition, especially from those who had contributed largely to it; but in very many cases the more intelligent parents, on seeing the practical benefits to their own children, have voluntarily given me their unqualified support.

The entire enrollment has been 86. They have been divided as follows: 38, tiring of us and being at liberty to leave, took their departure and probably now report in other schools; 34 have so far changed their minds (which means conduct) that they have again joined their former classes; the remainder still are trying with differing success to be good children—a small fraction of these will probably never succeed, though hope is always held out to them.

I consider the class no longer an experiment; under certain conditions certain results can certainly be predicated. It seems at once to solve the problem of the rod. The whole thing is simply this: that the deportment of

scholars should be classified as carefully as their scholarship, and for the same reason; and I speak safely when I say that the failure of either classification will subvert the other.

Many of these children, on their first trial, regain their lost seats and never return to the class; more fail and need a second chance; few take three trials, they feeling and we knowing it to be useless. The lessons are the same daily as their classmates are pursuing, so no time is lost; and as they are usually the most "brainy boys," they frequently distance their old classes, and only lose again through their own bad conduct, which takes the teacher's time. The best of feeling always exists between these children and their teacher, they having confidence to believe she too is hoping they will reach their classes again, and we frequently hear and know of marked expressions of gratitude to her for her endeavors in their behalf.

This class acts as a constant but quiet check over all the other classes, and so, while reducing punishment to a minimum, gives the most happy results in scholarship to the entire school.

Though our school has the disadvantage of being new and partially formed, as compared with older institutions, I feel that the united testimony of my teachers and my closest observation for the past year, in regard to the benefits to the school, cannot be very incorrect. The teachers teach, the children learn, and the deportment pupils try and frequently win. The corporal punishment possible in the ordinary class-room gives a weight to a misdeed greater than to many good ones, and the distraction of *many worthy minds* on account of the misdeeds of *one*. This should not be. Another objection to punishment is that, instead of the misdeed being *prevented*, it is actually *accomplished*, and the following punishment gives the whole affair the air of a sort of *quits* on both sides, after which they (the teacher and pupil) are again ready to enter on another skirmish; and so the days and deeds follow through all our schools.

Discipline which is not self-government does not deserve the name; and when the culprit finds he has to deal with himself instead of a second person, that his success is a direct measure of his personal exertion, and that no teacher can cancel his bad conduct by punishment, then, and then only, will he try to help himself; and all this necessitates a separate room and irregularity of time.

A teacher might as well try to make a child grow physically by taking his meals for him as to make him grow mentally or morally by depriving him of those conditions on which mental or moral fiber thrives—'tis a personal matter, and admits no second party.

"Our deeds still follow us from afar;  
'Tis what we have been makes us what we are."

Respectfully,

H. COOKE.

I append the annual reports of the Deputy Superintendent, the Secretary, the Inspecting Teacher, the Principals of the Boys' High School, of the Girls' High School, of the Commercial School and of the Lincoln Evening School, all of which contain matters of much interest to the Department, to which I invite your special attention.

All of which is respectfully submitted,

ANDREW J. MOULDER,  
Superintendent of Common Schools.

## REPORT OF THE DEPUTY SUPERINTENDENT.

HON A. J. MOULDER, *Superintendent Common Schools*:

SIR: I respectfully submit my report for the year ending June 30, 1885.

## VISITS.

Upon examination of the monthly reports of the Principals I find I am credited for the year with over five hundred visits to schools and classes. In a few instances but one visit has been returned for a school, where if the principal had properly summed up the reports of the assistant teachers, one would have been recorded for each room. It must not be supposed, however, that in all, or even a majority of these cases, I have been able to examine into and report upon the standing of the classes. Visits of which I have kept no regular record had frequently to be made for purposes of discipline and classification, to obtain reliable information in regard to numerous rumors and complaints, and to instruct principals in various matters connected with the management of their schools and the systematic instruction of the pupils, such as the arrangement of programmes, the subdivision of classes, fire-drill, marching, calisthenics, discipline in the yards, etc., etc.

By conferring with principals, observing assistants at their work and, above all, by taking charge of and instructing classes in the presence of the teacher, and whenever possible, of the principal, I have been enabled to greatly encourage and assist a large number of our teachers, especially the more inexperienced ones, and at the same time to acquire an intimate acquaintance with the condition and wants of the Department. I have also made it a point to call teachers' meetings whenever in examining schools I could spare the time and was present at the proper hour. At these meetings it has been my custom to refer generally to whatever defects I may have noticed while visiting the school, say a word in approval of what is meritorious, and answer questions propounded by the teachers in relation to the instruction and government of their classes. I regret that my various other duties have prevented me from doing as much as I otherwise could have done in the work here outlined. Although I am reported as having made between five and six hundred visits during the year, I do not think that more than two hundred of them deserve to be ranked as visits of inspection, and even some of these were not sufficiently extended to enable me to report with certainty upon the general progress of the pupils and the capability of the instructors.

## THE SIZE OF THE SCHOOL DEPARTMENT.—ITS GREAT NEED.

Few persons have any adequate idea of the great extent of this Department of the city government. Sixty-four schools, containing about six hundred and seventy classes are scattered over the territory of the city, from the

gates of the Presidio on the north, to the outside limits of South San Francisco, and from Telegraph Hill on the East to the Ocean and San Miguel on the West. A regiment of seven hundred and forty teachers (including twenty-six substitutes who are employed only in the absence of regular teachers) daily instructs an army of about thirty-three thousand children; counting, not the number enrolled, but those in actual attendance from day to day. Of these seven hundred and forty teachers, the great majority had, previous to assuming charge of their classes, no training in or preparation, other than scholastic, for the work of their profession. Many of those who are now principals belong to this majority. I will grant that these principals are naturally bright and that their experience has made them good teachers; but I submit that while the lessons of experience acquired in this way may be of great benefit to the person who has thus acquired them in preventing a recurrence of difficulties which he or she had previously overcome, still this knowledge, and the methods coupled with it, may be, and frequently is, entirely unfit for general application. The knowledge picked up during working hours by the instructor who never received, and who never studied, any *general* lessons in the art of teaching, is often apt to be suitable for that individual only. There are rules and maxims of education just as there are of war, law and medicine, and there are particular modes of procedure attaching to all these sciences which can be well carried out by some persons, and poorly, or not at all, by others—which would be entirely proper under some circumstances and absolutely improper under others. The power of distinguishing between general rules and conditional plans, of determining which assistants do best under instruction, and which ones are most successful when left to their own efforts; in other words, of deciding what to enforce and what to leave optional, how far to extend guidance and when to withdraw it, is necessary for the proper performance of the executive, and, I may add, judicial duties of every principal. If all our principals possessed this power, there would be some truth in the oft-repeated assertion that principals are the Inspectors or Deputy Superintendents of their own schools. But they are not, and for the very good reason that the directors whose votes placed them in the responsible positions they now occupy, did not select them for the possession of the qualities just specified, and could not have done so, no matter how willing they might have been. This Department is a vast one and the principals need the assistance, direction and supervision of competent inspectors much more than the assistants do, for the reason that their responsibility is so much greater and that their assistants are often not only unprepared for the labors required of them, but very reluctant to obey directions and rather inclined to appeal to friendly Directors for permission to infringe any rule, no matter how beneficial to the children, if its requirements are in the least, disagreeable.

To hear Directors speak of their patronage, and fourth grade politicians of their influence with the Board, to observe the great attention given the con-

tractors, the carpenters, the laborers and the janitors and the little thought expended either in selecting teachers or ascertaining their success afterwards, one would naturally suppose that the moral and intellectual advancement of the pupils was the last and least concern of those engaged in the administration of our educational affairs.

These remarks are expected to show, first: That there is no proper provision made for the appointment of the very best teachers who can be procured. Second, there is no safe method of discovering what teachers in our Department are most worthy of promotion, and of promoting them after they have been discovered. Third, there is no adequate inspecting force to instruct unskilled teachers in the proper performance of their duties and to discover the progress or lack of progress of the pupils.

The Board of Education of this city is a political body—and here let me explain that by the terms "Directors" and "Board of Education," I do not refer to the present Board or Directors or to any other particular Board, but to the continuous corporation known by that name. I assert that while it remains in its present form most of the evils for which Directors are so furiously assailed must continue to exist. Is it possible for a Director to select the most suitable of a number of applicants for a position when, in the first place, he does not know how, and, in the next, his political friends would consider the setting aside of their candidate a crime meriting political death?

The Directors are not to blame, but the law which provides the manner of their election is. If the owner of a ship officered his vessel with a number of teachers who never sailed even a row boat, he would have only himself to blame if disaster ensued; but I believe the teachers would be as well calculated to manage the vessel as the average Board is to manage a School Department. The teachers might provision the vessel and let the crew work it, and the Directors, as a rule, provision the Department and let the teachers work it. The parallel is broken in this, that no one is fool enough to employ men to direct his ship who do not understand navigation; but the people always send men to direct their schools who do not understand education. The invariable answer to objections like the foregoing is: "The duties of the Board call for business men and we cannot find teachers who understand business willing to accept the position." Of course not: the teachers who understand the requirements of this Department cannot afford to give up their positions for the unsalaried honor of sitting in the School Board for two years. It is also hard to imagine why business men should accept this office. My experience satisfies me that two-thirds of the censure and abuse heaped upon School Directors is undeserved, that because the people are most sensitive in all matters which intimately concern their children, the partisan papers which will always attack with virulence Directors of the opposite political faith, and that poor men seeking or accepting position as School Directors are certain to be suspected of selfish or corrupt motives. Doubtless the hope of political advancement was formerly a strong incentive to



many worthy men to permit their names to be used for this office. But now that the Board of Education has become a sort of political charnel, it is hard to understand why any one who does not possess the devotion of a martyr to the cause of education should accept this position with its salary of abuse and ill-repute and its pension of political ostracism. To sum up: because the Board is political it is watched and abused by the opposing party, and coaxed and threatened into favoritism by the politicians of its own. Because Directors are paid no salary for the performance of duties far more arduous than those of other well-paid city officials, they are suspected of, and often charged with, bribery and corruption. Because it is impossible to place even a respectable minority of educators upon the Board, the *business* of the Department, with the accompanying unending disputes in relation to contracts, text-books and other supplies, employees, etc., occupies almost the entire attention of the Board, and, in great part, as a necessary consequence, of its executive officer, the Superintendent, while the most important function, the one in which all others should centre—the educational—is left almost entirely to the examination and supervision of the Deputy and one Inspector.

I do not mean by the foregoing paragraph to imply that the members of the present Board do not visit the schools, for, indeed, I may say they are exceptional in this respect, especially the Chairmen and members of the Classification and Visiting Committees. What I wish to convey by educational inspection and supervision is, such an examination into the manner in which the duties of teachers and pupils are performed as would enable the inspector to properly pass upon the competency of the former and upon the progress of the latter.

If the Deputy Superintendent visited, like most of the Directors, merely to see the schools and the scholars, and, at most, to reach hap hazard an estimate, as likely to be unsound as the contrary, of the discipline and general management, he would probably have time to call upon every teacher in the Department twice a year; but when it is his business not only to discover how the teacher works and the pupils improve, but to report in writing upon these facts, it is easy to see that this all-important duty must, for want of time, be very imperfectly performed.

The office work necessary to give the information sought by teachers, parents, pupils and the general public, is amazing. The Directors have some idea of it. In the Secretary's office one clerk is frequently kept busy at the counter answering questions during the greater part of the day; but, I venture to say, the doubts and disputes connected directly with teaching and discipline, presented for settlement at the offices of the Superintendent and Deputy, demand more than double as much time and attention as the corresponding office work of the Directors and Secretaries. To this I make an exception in the case of the Chairman of the Classification Committee, Dr. Deane, who, besides visiting the schools with great regularity, gives three hours' office time daily to the affairs of the Department.

## HOURS OF VISITING.

I have spoken of the great size of the Department. I wish now to call attention to the limited time during which it is possible to visit the schools. All the children enter school at 9 A. M. daily. There is a recess for all from 10:30 A. M. to 10:45 A. M., and another from noon to 1 P. M. The children of the 8th and 7th grades (16,530 in April, 1885), are dismissed at 2:15 P. M.; those of the 6th and 5th grades (7,906 in April), are dismissed at 2:30 P. M., and the children of the 4th, 3d, 2d and 1st grades (8,790 in April), are dismissed at 3 P. M. This would give the working time (if the children could work up to and resume immediately after each recess, which, it is needless to say, they cannot), for 7th and 8th grades, 4 hours daily; for 5th and 6th grades,  $4\frac{1}{4}$  hours daily, and for 1st, 2d, 3d and 4th grades,  $4\frac{3}{4}$  hours. Making as little allowance as possible for the interruptions caused by recesses, the average daily session available for visiting purposes is not more than four hours. (More than 70 per cent. of the children are in the primary classes). Counting 206 school days in the year, the number of hours during which it would be possible to inspect our six hundred and seventy classes would be 824! To properly perform the work of examining pupils and instructing teachers, each class should be visited at least three times a year, and examined in at least three subjects. This would call for an average stay of two hours in each class, or, for three visits, six hours annually, and would require the constant services of *five inspecting teachers*.

The argument is often offered that we have so far succeeded very well without inspectors and under the present constitution of the Board. As compared with other cities in which conservatism is reckoned a virtue, it is likely that we have. Considering the faithfulness and untiring energy of our teachers and the natural brightness of our children, it is not surprising that, notwithstanding our weakness in management and lack of skill in detail, we should stand above the average. I insist, however, that our object should be, not merely to do as well as others, but to do as well as we can. If by exercising common sense and praiseworthy radicalism we can outstrip in *useful educational progress* cities and States which are still staggering in slow-paced dignity under the incubus of almost prehistoric conservatism, I submit our duty to ourselves and to our other selves, the children, should not permit us to remain in the rear merely to allow a set of tottering ancients to lead the van. Our schools are not half what they can be made. It is not the fault of the children that their schooling does not better fit them for the exigencies of business life. It is not the fault of the teachers that they often give as much time to the unimportant as to the essential subjects. There is no one to train them to distinguish the necessities from the accomplishments, and it is so easy to do what we have been doing. It is not the fault of the Board of Education that they do not know how to supervise the schools so as to direct teachers and pupils in the way in which they should go. Neither is it the fault of

Directors that San Francisco is the only city of consequence in the United States in which the term of office of all the members of the Board of Education expires at the same time. But it is the fault of the Board that they do not appoint a Board of Inspectors—educational foremen—to perform the work indicated above. This should be done at once, even if it does cost ten or twelve thousand dollars a year additional. If it cost \$800,000 to run the Department poorly, surely it is not too much to ask \$812,000 for running it well. If we spend \$800,000 a year for eleven years in fairly preparing our children for the battle of life, surely there would be a great saving in expense as well as in time if the same labor could be better performed in from eight to nine years for \$812,000 per year! Yet I am certain this is what can be done through the agency of a thoroughly competent, independent Board of Inspectors.

In my report for 1882-3, page 22, to which the reader is referred, I have shown that the appointment and proper organization of an Inspecting Board would, if, in their absence, written examinations must be held, cause a direct money saving. Mr. Leggett's estimate of the cost of written examinations is probably \$5,000 too high, and, if so, the saving would be \$5,000 annually instead of \$10,000, as there estimated.

Educators of the kind required for this office are few and far between. They must know the world, its wants and its habits, as well as the books. Persons who have received a one-sided, theoretical education, even if it be of the traditional kind generally known as classical, should not be selected to perform the duties of Inspector and Normal Instructor. Persons whose education is almost entirely mathematical or classical, especially the latter, unless attrition with the world has toned them down, are apt to consider authority proof, and to act as if all their conclusions were infallible just because *they* had reached them. Such people being perfect already, cannot improve, see no need for change or experiment, and will naturally put forth every effort to have those committed to their care do as they did. They never see the times getting ahead of them.

The great objection to the appointment of a competent Inspecting Board is the expense—always the expense. When the Democrats have control they fear the Republican papers will charge them with creating new offices or spending money unnecessarily. The Republicans seem to be equally afraid of the Democratic papers. It has become so clearly evident, especially since the discontinuation of the annual drudgery of the written examinations, that it is impossible to properly direct the teachers, or even to discover what they are doing except through frequent inspection of the classes, that the last Board appointed one inspector, and would, no doubt, have appointed others, only that what is known as the "dollar limit" prevented the Supervisors from setting apart sufficient funds for the proper conduct of the schools. The additional labors of even this one inspector have enabled the Board to gain a great deal of useful information respecting teachers and schools, which would be effectually hidden under the old written examination system;

but with all its drawbacks, I fear we shall be obliged to return to this plan unless a sufficient inspecting force is appointed.

Just as I prophesied, the mania for the *annual* promotion of their children, evolved from the rivalries of the old plan, has taken a stronger grip than ever of the parents, and weak principals, who should be called dishonest if they were not weak, yield to their importunities and advance pupils to higher classes before they have done half the work of those they leave.

It was hoped also that when the general pretext for incessant written exercises, viz., the necessity of drilling for the May examinations, was removed, the teachers would as a rule bring their minds into direct communication with those of their pupils, through the medium of oral teaching. This has not been done to half the extent I expected. There are, I regret to say, many teachers, so called, in our schools who do not appear to know the difference between teaching and examining, and who think the securing of results by means of tricks is education. Here is a sample: In a school which I visited recently the principal told me that a pupil lately received by transfer, who seldom understood anything of his arithmetic work, almost invariably found the answer to certain questions in percentage which were often rather puzzling to his brighter classmates. With such examples as, "What per cent. of \$20 is \$10?" he appeared to have no trouble whatever. Upon inquiry it was discovered that the rule of the school from which the pupil came was: Divide the "is" amount by the "of" amount!

There are sixty-four schools in the city. If there are twelve of these in which the principals are strong enough to stand out in every instance against the begging and coaxing, the implied influence and the covert threats of parents in their endeavors to have their children promoted before they are fitted to be, I don't know them. Principals are not strong enough to explain to parents the great injury which may be done a child by giving him work which he cannot perform, and to add: "I will not injure your child, no matter what inducements to do so you may offer me." No. They reason this way instead: "This child is nearly fitted to go on. If I promote him it will make his parents my friends for life. Besides, no one will be the wiser. The Deputy and Inspector can't get half around the Department, and if they do come, they cannot examine individuals, and there will be enough fair scholars to sustain the honor of the classes." Judging by my visits during the latter part of the year ending June, and since the commencement of the present term, there are not, in many of the schools, half enough "fair scholars to sustain the honor of the classes." I think it would be nearer the truth to assert that half the scholars are a grade too high. There are a few schools which tower like mountains above the others. The principals of these are the "Deputy Superintendents and Inspectors of their own schools;" but if a false economy will not permit us to have general inspectors, we must, on account of the retrogression of the other schools, resort again to the written examinations with their attendant evils. (The Board has just decided to hold written examinations in December.)

It may be that a tax of one per cent. on property always undervalued, and in a community where millions worth of luxuries are said to escape assessment, is sufficient to properly sustain the various functions of local government. By casting around carefully, our wealthy economists may discover that the assessment of property and the collection of the assessments can be more cheaply and just as thoroughly performed as now. They may even discover that the protection of person and property, through the police and the courts, can be as well done as at present for less money. Not being an expert in these matters, I do not know, and, as the injurious results of injudicious economy in these cases must quickly proclaim themselves, there is here no lasting danger to be apprehended. But I do claim to understand the school affairs of this city as well as any one, and I would say in all earnestness to those who administer our municipal affairs: "Beware! Food for either body or mind may be too cheap to be wholesome. It is poor policy to pay nine-tenths of the price of a genuine article for an unsound one. Starvation or ill health arising from improper nourishment may exist for a long time without being discovered. Starvation of the mental faculties is still harder to diagnose. Its existence is scarcely suspected until the mischief is done." And yet, if people would follow the dictates of common sense and shut their eyes on sham, it is easy enough to determine whether or not our schools supply the proper intellectual pabulum.

#### PRACTICAL EDUCATION.

I would ask the good people of San Francisco a few questions:

Do you want your children well prepared or but half prepared for the practical business of life? Do you want the things which they must know in order to succeed set aside for accomplishments which they can never utilize? Do you wish to make it necessary that your boys be re-educated after they go to work? Do you wish to see your girls ornamental in everything—useful in nothing? Will you be satisfied after your daughters have spent eleven years at school—the last three in profound meditation upon the mysteries of Botany, Zoology, Physics, Chemistry, Geometry, Algebra, Rhetoric, History, Latin, etc.—to discover, should they go shopping, that they find it extremely difficult to compute the cost of say eighteen yards of ribbon at, as the shopmen put it, a bit a yard, or the price of 4 pairs of stockings which sell for \$7.50 per dozen? Will you like it, Mr. Merchant, if you find that your beautiful daughter, who was literally loaded with bouquets when she read her graduating essay on "The Unknowable," makes five mistakes in running up the account of purchases made by your old friend and "early days" partner, Timkins of Grass Valley, and further, that she is entirely unable to properly compose the letter requesting payment "at earliest convenience," which should accompany the bill? Do you really, Mr. Average Parent, think it is good that your daughter's education should be so extended and should render her so accomplished that she becomes unwilling to work,

or, if willing, is unprepared for any kind of skilled labor, except, perhaps, as a teacher, to transmit to others the poor effects of her own ill-digested instruction? I say little, in this connection, about the boys, for they must face the world, and while they will not be nearly so skillful as a properly directed education would have made them—and the community must suffer through the defect—yet necessity will sharpen their wits, and the fittest will succeed; but is it right, because we can still afford to keep them in idleness, to give so little attention to the useful in their sphere when we undertake to educate the girls who are to be the mothers and matrons of the next generation? They will have the care of the bodies of our descendants during the most critical periods of their existence. Upon the quality of this care will depend, in great measure, the strength or weakness, physically, of the future defenders, bread-winners and mothers of our country. Is it not all-important, then, that our girls should be taught, not a little, but a great deal, about the general laws of health; ventilation and drainage of the house and of the ground under and about it; cleanliness of the person, the clothing and the home; necessity for variety, good quality and proper cooking of food; for moderate and natural physical exercise to preserve the activity and energy of the body; the evil effects of following fashions which interfere with the natural movements of the muscles? etc. These are a few of the things which should be taught in our schools, and well taught, not rendered distasteful by being forced upon the pupils as extra book tasks loaded with mysterious technicalities. There are many other things which might be suggested were the schools to give more attention, as they should, to the preservation of the health, and consequently the happiness, of our children. Sickness, accident and contagion are apt to appear anywhere. They seem to be the inevitable terrors of infancy. Why should not elder pupils be taught how to act in the presence of sickness and accident, and how best to avoid contagion?

We cry out, and with reason, against a system which sends young girls, who, though their scholarship may be all that is needed, know nothing of teaching, to learn that delicate and difficult science at the expense and risk of their pupils; but we say nothing against a system which leaves our girls in such profound ignorance of the laws of health and life that the young mother is forced to acquire the knowledge necessary for the proper care of her children by experience with them—that is, at the risk of their lives!

Hear Herbert Spencer upon the mental unfolding and character building of childhood:

“Consider the young mother and her nursery legislation. But a few years ago she was at school, where her memory was crammed with words, and names, and dates, and her reflective faculties scarcely in the slightest degree exercised—where not one idea was given her respecting the methods of dealing with the opening mind of childhood, and where her discipline did not in the least fit her for thinking out methods of her own. The inter-

vening years have been passed in practising music, in fancy-work, in novel-reading, and in party-going; no thought having yet been given to the grave responsibilities of maternity, and scarcely any of that solid intellectual culture obtained which would be some preparation for such responsibilities. And now see her with an unfolding human character committed to her charge—see her profoundly ignorant of the phenomena with which she has to deal, undertaking to do that which can be done but imperfectly with the aid of the profoundest knowledge. She knows nothing about the nature of the emotions, their order of evolution, their functions, or where use ends and abuse begins. And then, ignorant as she is of that with which she has to deal, she is equally ignorant of the effects that will be produced upon it by this or that treatment. What can be more inevitable than the disastrous results we see hourly arising? This and that kind of action which are quite normal and beneficial she perpetually thwarts, and so diminishes the child's happiness and profit, injures its temper and her own, and produces estrangement. Deeds which she thinks it desirable to encourage she gets performed by threats and bribes, or by exciting a desire for applause, considering little what the inward motive may be, so long as the outward conduct conforms; and thus cultivating hypocrisy, fear and selfishness, in place of good feeling. While insisting on truthfulness, she constantly sets an example of untruth by threatening penalties which she does not inflict. She has not the remotest idea that in the nursery, as in the world, that alone is the truly salutary discipline which visits on all conduct, good and bad, the natural consequences—the consequences, pleasurable or painful, which in the nature of things such conduct tends to bring.

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“Grant that the phenomena of intelligence conform to laws; grant that the evolution of intelligence in a child also conforms to laws, and it follows inevitably that education can be rightly guided only by a knowledge of these laws. How widely, then, must teaching, as it is, differ from teaching as it should be, when hardly any parents, and but few teachers, know anything about psychology. As might be expected, the system is grievously at fault, alike in matter and in manner. While the right class of facts is withheld, the wrong class is forcibly administered in the wrong way and in the wrong order.”

That last sentence should be constantly before the mind of every teacher who wishes to improve in the science of education—“While the right class of facts is withheld, the wrong class is forcibly administered in the wrong way and in the wrong order.”

It may be impossible to induce or compel teachers to adopt the high but simple scientific and practical standard of education put forward by Spencer. There certainly is not the smallest chance that such a course will be followed until the leaders in educational reform see some good in it. The ladies who have charge of the advanced classes of girls should be eminently

qualified to teach their pupils how to care for themselves and their households. It would benefit the teachers as well as the pupils if they taught the girls at least something about plain sewing and cutting, cooking and housecleaning. It would also be an excellent thing for the teachers of the highest classes if they would occasionally come down from the cloud-land of the "ologies" and study first and teach after, how a baby learns. It is said that in nine cases out of ten when a graduate of the Girls' High School attempts to earn a livelihood she does so by teaching. Why then should it be considered ridiculous in High School girls and their teachers to study something, through, let us say, the kindergarten system, about the wants and ways of children? We are too delicate and too nice and perhaps too hypocritical to speak out like Spencer upon the proper education of our girls; but I suppose it will not be considered improper to suggest that if a graduate of the Girls' High School reared, let us say, in affluence, is suddenly brought face to face, through the death or loss of fortune of her parents, with the necessity of earning a livelihood, and further, if in seeking an opportunity to do so she can find no market for her Botany or her Geometry, or her Zoology, or her Algebra, or her Rhetoric, or her Latin, she will be obliged to starve unless some kind friend gives her an opportunity to learn to take care of children, or to wash, or to sew, or to cook, or to clean house. Don't you think, good people of San Francisco, that that poor girl would think with Spencer, that when she went to school, the right class of facts was withheld from her and that the wrong class was forced upon her in the wrong time? Take, now, a case which is much more likely to happen. Suppose our young lady graduate marries a wealthy young merchant whose prospects are all that can be desired. She has servants to attend to her every want. Her accomplishments and her goodness, her grace and her wit are a source of never-failing pleasure to her husband. But a crash in business comes. Everything is not lost. The man is young, hopeful and energetic. He understands his business and if he can only curtail his house expenses, all may yet be well. His wife would be glad to help; but she cannot mend or wash or cook, and the husband is unable to retrieve his fortune because his accomplished wife is not as usefully educated as her housemaid! I have no objection to accomplishments *in the right place*. They are the luxuries of education; but the necessities should precede them.

At the commencement of this school term a practical effort in the right direction was made by the introduction of a text-book on Household Economy for use in the girls' classes. One would expect that the teachers would be happy to have the sanction of the Board, and, at the same time, the means furnished them to study and teach this so long withheld "right class of facts." But no; so set are many of our teachers against all innovation and experiment, that I am sorry to have to confess I have heard two complaints to one indorsement—not simply against the text-book, for that may be faulty, but against the innovation, the added labor of giving instruction in this new branch.



And so it must, in the natural order of things, continue until a set of hard-headed Inspectors separate the necessities of education from the luxuries—the useful knowledge from the accomplishments—and instruct our teachers to present the former first and *in the right order*, while the latter must be placed according to the dictum of Spencer—“*As they occupy the leisure part of life, so should they occupy the leisure part of education.*”

It may seem that I have overdrawn the picture of the educational weaknesses of the graduates of the Girls' High School. I have not. I have in my office answers to questions given at a written examination held for the purpose of admitting nine candidates to vacancies in the City Normal Class. These answers will confirm all that I have intimated regarding Arithmetic, and show a like lamentable ignorance of History, Geography, Elementary Physics, Physiology, Algebra—in fact, all the subjects upon which teachers should be well instructed, with, perhaps, the single exception of English Language. Of twenty-seven young ladies who presented themselves for examination, all but three or four were High School graduates of the preceding year, and but one of the entire number was deemed at all worthy to be admitted to the class. This year the Inspector, upon a similar examination, was unable to admit any of the applicants. Both years, however, some of those who failed were allowed to enter upon the recommendation of Directors.

It will no doubt seem surprising in the light of the foregoing, when I assert that the teachers of the Girls' High School are, as a rule, faithful and able instructors. The trouble is that the “right class of facts,” the elementary essentials of the common schools, is not reviewed—“is withheld”—and the “wrong class is forcibly administered” in the wrong, because objectless way, and “in the wrong order,” because they are put instead of the knowledge from which they should be deduced. The High School course of study is in the prevailing fashion; but it is hard to argue that the knowledge acquired by the students is likely to benefit the public. The principal seems to see clearly enough, the necessity of reviewing and extending the more practical Grammar School work; but I am credibly informed the assistants look with contempt upon mere Grammar School studies, and the result is that a great part of what should be done is omitted and a great part of what is attempted cannot be done because of the omission.

It would be a blessing to this land if some power would shape the work of the Primary and Grammar Schools so that it would lead more directly towards the useful in real life, and, at the same time, give pupils scientific habits of thought; build the work of the High Schools upon these elementary requirements and turn the minds of the pupils, while gaining this added knowledge, toward the avenues of trade, industry and art, which lead to national greatness; and employ the thought of our universities in reaching those scientific generalizations not only upon which our arts should be based and by which our industrial experiments should be conducted; but in the

light of which order, government, the relations of society—progress itself—must present their possibilities, and through the studying of which the enlightened citizens of to-day shall learn to avoid the mistakes of the past, while ever discovering new ways of adding to the sum of human happiness.

#### THE BOYS' HIGH SCHOOL AND THE UNIVERSITY.

It is generally acknowledged that the purposes of education are two, namely: 1. To prepare for practical life, and, while making this preparation, 2. To develop the faculties, moral, intellectual and physical. In whatever we do we should have an end to attain and that end should be kept constantly in view.

It is curious in following the history of education to note its general aimlessness, and more surprising still to observe how the educators of every period, with few exceptions, endeavor to force the precepts of their teachers upon their pupils.

In his *Mental Discipline in Education*, Youmans says: The ancient philosophers held that it was as degrading to seek useful knowledge as to practice useful arts; hence, subjects of study were chosen as intellectual gymnastics, and to acquire mental discipline, and this, not as a preparation for valuable mental labor, but as the end in itself. Not the game, but the excitement of the chase; not the truth, but the exhilaration of its pursuit, were the mottoes of culture.

"Mental power was ostentatiously wasted, and with the necessary consequences—truth unsought was not found; the ends of culture being ignored, there was neither conquest of nature nor progress of society."

And, in speaking of the culture demanded by modern life, he adds:

"Let it be remembered that this culture does not deny the importance of mental discipline, but only the wasteful policy of vicarious discipline. The question has three aspects. The ancients employed the useless fact A for disciplinary purposes and ignored the useful fact B. The adherents of the current theory propose to learn first the useless fact A to get the discipline necessary to acquire the useful fact B; while a rational system ignores useless A and attacks B at once, making it serve both for knowledge and discipline. The ancient view was more reasonable than that which has grown out of it. It wanted one acquisition and it made it; the prevailing method wants one and it makes two; and as it costs as much effort to learn a useless fact as a useful one, by this method half the power is wasted."

If Youmans be correct, I have put the purposes of education in proper order—1, to prepare for practical life, and while making this preparation, 2, to develop the faculties, moral, intellectual and physical.

The Boys' High School, in my opinion, reverses this order. The main object seems to be, by the study of subjects almost useless in practical life, to bring about such mental development and discipline as will enable the students to outstrip their competitors, 1st, in making a living, and 2nd, in enjoying it. I confess I am unable to understand how a young man who

has been educated in the theories of the ordinary branches taught in our schools, topped off with an elaborate *polishing* in Latin and Greek, can outstrip another whose mathematics was a preparation for the solution of problems arising in mercantile pursuits, engineering, architecture or navigation; or who, in studying physics, was taught to compute the power developed under certain conditions, how to lessen friction or save fuel, to calculate pressure, to construct machines, etc.; or who had learned in the laboratory to assay ores, to determine the explosive force generated by the sudden change of solids or fluids into gas, to mix dye stuffs, or, perhaps, to compound disinfectants capable of destroying various forms of parasitic life, and thus to ward off contagion and epidemic; or who had been taught in the agricultural school the natures of soils and the crops for which each is best suited, the rotation of crops, planting, pruning, budding, grafting, manuring, destroying insect pests, handling and repairing farm implements, caring for stock, etc. It certainly appears to me that not only must a young man who has received the higher technical education here hinted at, be better prepared to engage in the business of making a living; but, for the reason that, in receiving this education, his thoughts are turned upon living issues which will not admit of incorrect reasoning or half solutions, his mental powers must of necessity become better developed than they could possibly be if several years of his school life were devoted to the study of the grammatical properties of languages almost entirely different in construction from his own and to the folly of endeavoring to acquire the modes of thought and expression of people who, no matter how superior to their contemporaries, were as far behind the science, civilization and enterprise of to-day as they were in advance of their most barbarous neighbors.

We do not want to train our youth in the oratory and metaphysics of the Greeks. If we did, the study of the classics, as pursued at present, would not accomplish that purpose. In language our pupils must be taught to express their ideas clearly and tersely in their mother tongue, and whatever knowledge of Saxon, Latin, Greek, etc., is required in this connection, should be sought directly by studying the *roots* of English words derived from those languages. Our pupils have not the time to study Greek and Latin in order to become conversant with the literature and to acquire the style of the Greeks and Romans. These languages are no longer a common channel of expression for the learned. Our classical students not only cannot express their thoughts in Greek and Latin, but they cannot read and understand the works of those who have done so. The valuable time spent upon Greek and Latin is devoted chiefly to the study of the inflections or grammatical changes in the endings of words, while the study of the roots from these languages which enter into so many of our English words is correspondingly neglected. It is a fact of which, in my experience as a member of the Board of Examination, I have had frequent proofs, that those who had made a short study of Word Analysis knew more about the roots and

meanings of English words than those who had taken a "college course" in Latin and Greek.

On this subject Youmans writes:

"The young student is detached from his early mental conceptions, expatriated to Greece and Rome for a course of years, becomes charged with antiquated ideas, and then returns to resume his relation with the onflowing current of events in his own age. The radical defect of the traditional system is that it fails to recognize and grasp the controlling ends of culture. Misled by the fallacy that through a scheme of aimless exercises for discipline, mental power may be accumulated for universal application, it sees no necessity of organizing education with explicit reference to ultimate and definite purposes, and it thus forfeits its rights of control over the educational interests of the time. For that there are great and well-defined aims, revealed with more clearness in this age than ever before, to which a higher mental culture should be subservient, does not admit of intelligent question. If the classical system grasps the conception of education in its ends as well as its beginnings, as a preparation for the activities of life; and of discipline, as the formation of habits to guide a constantly unfolding mental career; if it unfolds the order of the world and puts the student in command of the ripest and richest results of past thinking; if it qualifies for the best relations of parenthood, citizenship, and the uniform responsibilities of social relation; if it equips for the intelligent and courageous consideration of those vital questions which the progress of knowledge and aspiration are forcing upon society; if it fits most effectually for these supreme ends, then, indeed, it affords a proper discipline for the needs of the time; but if the student, after having faithfully mastered his collegiate tasks, finds, upon entering the world of action, that his acquisitions are not available, that he has to leave them behind him and begin anew, then his preparation has been a bad one; time has been irretrievably lost, power irrecoverably wasted, and the chances are high that he will give the go-by to modern knowledge, and thin down his intellectual life to the languid nursing of his classical memories.

"It is well known that, in numerous cases, the success of educated men may be directly traced to neglect of the regular college studies, or to their neutralization by the vigorous pursuit of other subjects; and equally notorious that in numberless other cases, where the student has surrendered himself to college influences and conquered his *curriculum*, exactly in proportion to his fidelity has been his defeat. He has mastered a disqualifying culture."

Thirty years ago Herbert Spencer wrote:

"We are guilty of something like a platitude when we say that throughout his after career a boy, in nine cases out of ten, applies his Latin and Greek to no practical purposes. The remark is trite that in his shop, or his office, in managing his estate or his family, in playing his part as director of a bank or a railway, he is very little aided by this knowledge he took so many years to acquire—so little that generally the greater part of it drops

out of his memory; and if he occasionally vents a Latin quotation, or alludes to some Greek myth, it is less to throw light on the topic in hand than for the sake of effect. If we inquire what is the real motive for giving boys a classical education, we find it to be simply conformity to public opinion. Men dress their children's minds as they do their bodies, in the prevailing fashion. As the Orinoco Indian puts on his paint before leaving his hut, not with a view to any direct benefit, but because he would be ashamed to be seen without it, so a boy's drilling in Latin and Greek is insisted on, not because of their intrinsic value, but that he may not be disgraced by being found ignorant of them—that he may have 'the education of a gentleman,' the badge marking a certain social position and bringing a consequent respect."

I might cite half a dozen additional authorities, among them President Elliot of Harvard and Charles Francis Adams, in support of the views of Youmans and Spencer on this subject; but there is no necessity. Any sensible man, not a philologist—a lover of speech—or a classical teacher, who fairly examines this question, must admit that the constant enlargement of trade and commerce, and the rapid and ever accelerating development of science and the arts arising therefrom, demand a corresponding advance in our educational system, and, in view of this necessity, it is hard to understand how any conscientious, unbiassed educator can look upon the waste of time permitted in the study of Latin and Greek as other than a crime against the rising generation.

We sin both ways. We have the study of the classics, which practically prepares for nothing, and we omit the technical education necessary to prepare our youth for the real activities of life.

If instruction in Latin and Greek is not discontinued in the Boys' High School, it should, in the interest of the community, be materially modified. At the commencement of the present school term, July, 1885, there were one hundred and forty students taking the classical and one hundred and ten the English course! The chief argument advanced by the principal and other teachers of the High School is that some knowledge of Latin and Greek is required in several of the University courses. If the University methods are wrong they should be corrected. It should not be supposed that the University people are infallible, or that the High Schools should blindly obey their behests. All along the line of public instruction there should be something more in view than the preparation of the pupil for the school above. The Primary Schools should prepare their pupils, however slightly, for practical life, and for the Grammar Schools. The Grammar Schools should better prepare their pupils for practical life, and for the High Schools. The High Schools should still better prepare their pupils for practical life, and for the University. And the University should best prepare its students for practical life. Does it? I think not—at least not in some of its colleges.

## THE UNIVERSITY.

If it be asserted and admitted that our High Schools are preparatory to the University, then it is certainly my right, if not my duty, by reason of my office, to examine into and criticise the educational methods pursued in this our highest public school.

I made this examination in the departments which particularly interested me—1st, by studying the register of the University, and 2ndly, by visiting the University and interviewing the President, the Professor of Agriculture, and the Instructor in Civil Engineering.

I find that for the year 1884-85 there were two hundred and forty-one students in the various colleges of the Academic Department. (In addition to the Academic Department there are Colleges of Law, Medicine, Dentistry and Pharmacy.)

They were classified as follows:

Graduate Department.....	5
College of Letters.....	51
Literary Course.....	52
Course in Letters and Political Science.....	48
College of Agriculture.....	8
College of Mechanics.....	10
College of Mining.....	20
College of Civil Engineering.....	30
College of Chemistry.....	22
Deduct for names inserted twice.....	5

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The Graduate Department is one in which graduates of the University of California, "or some other University or College of acknowledged good standing," pursue a course of study "extending over at least three years," leading to the degree of Doctor of Philosophy, Master of Arts, Master of Science, etc.

There were but five members in this Department, but two of whom were candidates for a degree, one for A.M.—the other for M.L.

I happen to know that the A.M., after his seven years' University work, was strongly tempted, but a few days since, to accept a six months' school at sixty dollars a month, in Modoc county, and it was the remoteness of the location, and not the smallness of the salary, that restrained him.

The College of Letters, or, as it is also called, the Classical Course, is thus described:

"The CLASSICAL COURSE corresponds to the usual academic course of the leading American colleges. It is designed to offer preparation for professional study, and to furnish a liberal education. Prominence is given to both Latin and Greek. All the instruction in Latin and Greek aims to bring out the relation of these languages to our own." (!)

## LITERARY COURSE.

"The LITERARY COURSE has the same general purpose as the Classical Course. The principal difference in the curriculum is that students in the Literary Course do not take Greek, and as an offset enjoy a fuller course in English, French or German."

## COURSE IN LETTERS AND POLITICAL SCIENCE.

"Students may enter upon this course by complying with the requirements for admission to the Classical Course."

Latin, Greek, English and German are elective during the Freshman and Sophomore years, but two of these studies must be taken. Students may enter the Junior Class (third year) of this course "after completing the first two years of either the Classical or Literary Course."

It seems clear that these three courses, comprising nearly two-thirds of the entire enrollment, are really but subdivisions of the Classical Department of the University.

Admitting, for the sake of argument, that they furnish a "liberal education," whatever that may mean, is it proper that a public school—an institution belonging to the entire people—should prepare over sixty per cent. of its students to play gentlemen?

I am honestly puzzled to know what the "professional career" can be for which these courses prepare. It certainly cannot be Law, Medicine, Dentistry, Pharmacy, Agriculture, Mechanics, Mining, Civil Engineering, or Chemistry, since there are special colleges for all these.

And now let us turn to what may be called the Industrial Departments—those of Agriculture, Mechanics, Mining, Civil Engineering and Chemistry. In these five colleges there are just ninety students. In the three fashionable classical colleges, where the traditional system of instruction is pursued, there are one hundred and fifty-one students!

## THE COLLEGES OF AGRICULTURE AND THE MECHANIC ARTS.

The Congressional law endowing Universities is entitled, "An Act donating public lands to the several States and Territories which may provide colleges for the benefit of Agriculture and the Mechanic Arts."

Could anything say more plainly, "These are the principal subjects. Omit or have whatever else you please; these you must have. We consider instruction in these subjects alone a full equivalent for the magnificent domain with which we endow you?" The objects of the nation, voiced by its representatives, were, beyond all doubt, the furtherance of scientific and practical agriculture and kindred sciences, and the establishment of the higher kind of technical schools. It seems to me quite clear that our Representatives in Congress, looking directly at the world of commerce and manufacture, and not viewing education through the spectacles of the ancients, saw that if the vast resources of this immense nation are to be

opened up and used to the best advantage; if skilled, and therefore well paid labor, is to be fostered and extended at home rather than imported; if we are, in short, with the initial advantages of vast supplies of raw material and the superior intelligence of the masses, to vie with the nations of Europe in the more delicate kinds of manufacture, we must, as France, England, Russia, Switzerland and Germany have done, establish and maintain, at the public expense, technical schools in which all instruction, whether it be in language, science or the arts, shall bear directly on the activities of life.

In reference to the Agricultural College, the register says:

"The experimental grounds of the University afford abundant means and opportunity for the practical demonstration of such application (of the principles taught, to practice), which is amplified by excursions to farms and other working establishments. But the time usually allotted to professional education by sons and parents is so short in comparison with the wider range of subjects to be compassed by a well educated man, that time for other than illustrative performance of actual labor is rarely found. Hence such labor does not form part of the required course. Experience shows that the mere handicraft is very quickly acquired by any one familiar with underlying principles and objects to be accomplished."

In other words, the young farmer must be so well educated in other branches and in the theories of agriculture that there is no time to teach him *practical* farming or horticulture! Seeing mention in the statements quoted of "the experimental grounds of the University," "excursions to farms and other working establishments," and "time for the illustrative performance of actual labor," I thought that, although the bulletin said "labor does not form part of the required course," the students must certainly have enough of the "illustrative performance" on "the experimental grounds" to enable them to properly handle the plow, harrow and cultivator, and to plant, graft and bud trees, etc. To settle the matter, I visited Berkeley. The first time I called, the President and the Professor of Agriculture were absent, and I did not succeed in discovering any agricultural students on the experimental grounds or elsewhere. I found, however, that the Agricultural Department really did exist, and that it was spoken of by the students generally as the "Cow College." My second visit was more successful. President Reid very kindly placed himself at my disposal. I was introduced to Professor Hilgard, who conducted me through the winery, a small brick building, consisting of two rooms scarcely as large as ordinary bed chambers. The wines, generally about a year old, made from samples of grapes sent from all parts of the State, were in excellent condition. The making, clearing and blending was done, under the direction of the Professor, by one of the graduates, at a salary of \$75 per month (since increased to \$100).

I asked the Professor if the students had any practice in the use of farm or garden implements. No; they had that at home before coming to the University. Did they plant, graft, bud or prune the vines or orchard trees? No; labor of this kind was unpopular among the students, and they would



learn these things when they took charge of a farm. Mr. Reid remarked that a great deal of the Professor's time was occupied in endeavoring to improve the parents, the actual farmers, by issuing pamphlets and delivering lectures.

Mr. Reid took me through the orchard, gardens and nurseries. Everything was neat, clean and in excellent order—*kept so by hired labor.*

Upon looking up the residences of the eight students comprising the Agricultural College, I find that one belongs to San Francisco, two to Oakland, two to Santa Barbara, one to Fruit Vale and two to Berkeley. Outside of the fact that any boy who takes the full course of public instruction has not a great deal of time for other business before reaching the University, I think these places of residence do not offer the very best facilities for practice in the use of implements of agriculture.

#### THE COLLEGE OF MECHANICS.

"This college (ten students) offers the education necessary for the mechanical engineer, and for such professional pursuits as involve a knowledge of machinery."

There is a laboratory and also a machine shop connected with this college. Among the objects which they are designed to facilitate are mentioned:

Experimental inquiry into the character and treatment of materials, and "Building and testing machines designed by the students."

The shop boasts possession of the following machines:

"A four-horse gas engine, screw-cutting lathe, small Stuart lathe, milling machine, shaper, band saw, circular saw, emery grinder, small forge and blower, upright drill, Swiss gear cutter, large engine lathe, large planer, a brass foundry and smithy."

Reading also that the "machine shop is under the superintendence of an able mechanic," I thought here at least good work is being done. The students must surely construct something with these machines, or the able mechanic will have nothing to do.

Turning to the explanation of studies under the head "*Mechanical Engineering*," I find *Analytic Mechanics* prescribed in Junior year; *Hydraulics*, Senior year; *Kinematics*, Senior year, *not given in 1884-5*; *Thermodynamics*, Senior year; *General Machine Construction*, Senior year. "Four times a week during second term. Not given during 1884-5." (What has the "able mechanic" been doing?) *Laboratory, Construction and Experimenting*, Senior year.

Observe, none of this work is done in the Freshman and Sophomore years.

The instruction of the two hundred and forty-one students taking the academic courses of the University has been given by fourteen Professors and twelve Instructors. The current annual expenses are very close to \$100,000. The nation and the State have been unstinted in their liberality, and by their laws clearly show that they expect as a return such an educa-

tion for our youth as will rid the community of idlers and make the State, and therefore the nation, richer, wiser and happier.

If the instruction of the elementary schools is to be preparatory to that of the University, then the University must instruct properly. Not one in one thousand of those attending the elementary schools reaches the University. If, therefore, we give one thought to the preparation of our children for the University, we should bestow at least nine hundred and ninety-nine upon their preparation for the battle of life. When the University does its duty by also training its students for that struggle, then practical instruction in science and the arts will be willingly substituted in the High Schools for the dry bones of the dead languages; fashionable methods will gradually make way for practical ones; and the schools generally will make our children better and happier because more useful citizens. The University needs an Inspector.

#### SOME TECHNICAL SCHOOLS.

Among those who like to debate the questions of the day there are many of conservative inclinations, who, when logically "driven to the wall," say: "Yes, you are right; it would be an improvement to have things as you say; but it isn't practicable; people won't do it." Now, surely there is nothing impracticable in confining High School instruction in the Latin and Greek languages to such students as intend to follow the professions of Law, Medicine or Theology, and, at the same time, giving more attention to reviewing the strictly business studies of the lower grades. The proper curtailment of the classical studies would also give time for such an extension of the work in Physics and Chemistry as would permit the natural teaching of the former in the work-shop, as applied to designing and construction of machines, etc., and of the latter in the laboratory, not through qualitative and quantitative analysis merely, but in its application generally to the industrial arts.

Most people are willing to admit that this is what should be done, and innocently ask, "Why don't you do it?" I cannot do this because most of the High School teachers believe in the only method of which they have any knowledge—namely, the old system—and know little about, and desire little to do with, the new method which, in the near future, *must* be engrafted upon our school work—namely, the technical system—while the business Directors, knowing little of the science of Education, fear to break new ground, lest the move might be unpopular or they might become involved in a newspaper fuss. They have but two years to serve and they will leave improvements to their successors rather than endanger their own political prospects.

A course of study embodying the changes hinted at could easily be made out; but without a friendly Inspecting Board to practically organize and carry out the new departure, the improvements would soon fall flat and the High School would return to its ancient ways of classics, theory and inutility.

We could introduce technical education in the elementary schools all the

more readily if the University people would limit the attendance in their Classical Departments to the classes of students mentioned above, and if instead of keeping their machine-shop for the exclusive use of the students in the College of Mechanics, those of the Agricultural, Mining and Engineering Departments were therein required to perform, with their own hands, their forging, constructing and testing of materials.

The students of the Agricultural College should be farmers, gardeners, wine-makers and sugar-makers in deed instead of in theory. They should hitch their horses, guide their plows and repair their machinery; they should plant and prune, bud and graft and rear from the seed, not by proxy, but with their own stalwart hands. They should learn to respect labor by doing it.

As a portion of my training for the profession of teaching, I took a partial course in an Agricultural School, where the students did all these and many similar things, and as fast as they graduated they found lucrative situations as superintendents of large farming and stock ranches. I have seen a fair share of California, but I have never found a graduate of the University Agricultural College in such a position.

I suppose it will be admitted that we can do what has been done. I shall, therefore, introduce a short sketch of the history and progress of technical education in Europe and the United States.

In 1874, C. B. Stetson, a Boston teacher, published a book entitled "Technical Education—What It Is and What American Schools Should Teach." This book is chiefly useful in showing the awakening of England to the fact that a large portion of the trade and commerce of which she was accustomed to have exclusive control, was gradually becoming absorbed by France, Germany, Switzerland, the United States and other countries, and that the chief cause of this change lay in the fact that these countries, with the exception of the United States, took especial care of the technical education of their youth. Through the medium of immigration this country was shown to be benefited indirectly by the technical schools of Europe.

In 1867, a Parliamentary Commission addressed the following questions to the various Chambers of Commerce of Great Britain:

1. What trades are now being injured by the want of technical education?
2. How, and in what particulars, are they injured?
3. How do other countries, from their greater attention to technical instruction, absorb our trade? Give instances and, if possible, statistics.
4. What plan of technical education would remedy the evil?

Here are a few quotations from the answers:

The Birmingham report states, that "Every trade in Birmingham and the district is being impaired by the want of mechanical education, and those trades the most in which the cost of the articles produced consist most of labor and least of raw material."

The Staffordshire Potteries Chamber replies as follows:

"It would be difficult to say *what* trades are now injured by the want of technical educa-

tion. The question would perhaps have been better had it been asked 'What trades *would be* injured if they could not have imported workmen, or the productions of workmen who, from having received a better education than the workmen of this country, had thus fitted themselves to perform duties which could not be undertaken by our own people?' If the question be so put, it is only necessary to point out the numerous cases in which foreign workmen are employed and foreign designs carried out in most if not all of the principal manufactories of this country—work which might have been performed by English workmen had they been sufficiently educated for the purpose; the result of which is an increased expenditure to the manufacturers, and consequently a greater inability on their part to meet foreign competition, both at home and abroad, resulting in loss to the English workmen and the country generally.'

In reply to the question, "How and in what particulars are the trades of this country injured?" the general purport of the answers is that among employers, foremen and workmen, great deficiencies exist in those branches of knowledge which bear most intimately on the great departments of industry. For most trades, a knowledge of design, of theoretical and applied mechanics, and of abstract and applied chemistry, are of the highest importance.

The Wakefield Chamber speaks of the "want of theoretical and applied knowledge on the part of the workmen in the various trades in which they are respectively employed, *particularly of mechanical drawing as an art*, practical geometry required by engineers, cabinet-makers, and mechanics generally, and chemistry practically applied."

Nottingham Chamber:

"It is the opinion of this Chamber that our national system of instruction lays too great stress upon high finish in the execution of the work, rather than upon a system which would give our art-workmen the facility of rapid and intelligent execution."

Kendal:

"The want of scientific knowledge, and especially of chemistry, is a great obstacle to progress in the manufacturers in this district. Many manufacturers employ French artists, and others procure their designs from abroad.

"In dyeing, the foreign dyers, especially the French, produce brighter colors than the English, and this is mainly in consequence of the knowledge of chemistry possessed by their workmen.

"In machine-making, the want of workmen *who understand the law as well as the practice* of mechanics, is severely felt; and this applies to all trades in which machinery is used, especially in the introduction of new machinery.

"In agriculture, a knowledge of chemistry and mechanical science would be exceedingly beneficial to the farmer; and the need of it is becoming daily more and more apparent."

The Bath Chamber believes that "the shawl trade of Leeds has been absorbed by Continental manufacturers by reason of their technical knowledge, especially as respects the laws of form and color."

The Macclesfield Report states, "that the silk trade is injured by a superior skill in dye and finish on the Continent, causing a very large increase in foreign competition, which is aided by unequal tariffs and cheap labor abroad."

The Birmingham Chamber says:

"In other countries the work-people are instructed in science and art. The effect of this is shown in the rapid improvement of their manufactures, in beauty of form, excellence of finish, adaptation to the purpose for which they are intended and cheapness; and their excellences enable them now to be in the course of largely supplanting us in the markets of the world."

With reference to the fourth question, viz: "What plan of technical education would remedy the evil?" the answers substantially agree in the following propositions:

First. *The necessity of largely increased primary education;*

Second. *The establishment of schools of science and art in the great centers of industry aided by government.*

We have a sufficiently extensive system of Primary Schools, if we only had *competent overseers* to shape the education given therein in conformity with the needs of society. We have, or can have, the schools aided by Government, near the "centres of industry," only they are not schools of "Science and Art."

Following are a few quotations from a letter in answer to the above questions, addressed to Lord Montagu, Vice-President of the Committee of Council on Education, England, by Mr. Jacob Behrens, a member of the Committee on Technical Education, appointed by the Associated Chambers of Commerce:

"The population of this district has for centuries been trained in the combing, spinning, weaving and dyeing of the long wool grown in this and some neighboring counties, and nowhere out of England.

"The owners and managers of many foreign factories apply the results of their scientific training to our machines, and improve them to a degree which already compels us to acknowledge a marked superiority in some of their productions."

"The mills at Rheims produce from Australian wools, merinos, the perfection of which we have never been able to approach.

"The worsted mills at Notts, in Belgium, employ the same weft and warp as we do, but weave fancy goods which are preferred to ours in neutral markets.

"Germany, and principally Saxony, import annually above five million pounds' worth of our worsted yarns, *of which a great part is re-exported to the United States*, manufactured into fancy goods.

"Thousands of pieces of Orleans are every year sent to France to be dyed and finished there, which would not be done if the French had not improved upon the original invention of our operative dyers.

"Not confining my definition of technical education to mechanics and chemistry, but including in it training for commercial pursuits, I may state that the ignorance of modern languages, of the geography and the laws and customs of foreign nations, which is yet prevalent amongst the rising generation, even of the affluent classes, is a great bar to their commercial progress, and has been one great means of throwing almost the whole of our Continental trade into the hands of foreigners residing in this town.

"We feel very keenly that even in the production of articles in which we excel, we begin to be hardly pressed by other countries, which, until lately, were very far behind us—particularly by Germany, Belgium and France.

"When we examine into the causes of their success, we find that they all have one advantage which we do not possess, namely, a better system of technical education.

"The man who understands the construction not only of one particular loom, but that of all other looms, must be a more efficient overlooker or manager than the mere mechanic of our factories."

I certainly think the foregoing paragraphs furnish a great deal of food for reflection. It seems clear to me that a commission asking these questions in this country would get answers even more striking. We are teaching what is not needed, and neglecting that which, in spite of unfavorable natural conditions and dense population, has enriched other countries.

In the preceding quotations we find repeated evidence of the superiority of French workmen. Perhaps the following anecdote told of the first Napoleon will shed some light on this subject:

"One day the Emperor, while still First Consul, paid a visit to the college at Compiègne, and questioned some of the elder pupils as to what they

intended to do on leaving college. He was much dissatisfied with their answers. 'The Government,' said he, 'pays considerable sums to educate these young men, and when their studies are ended none of them, except those who enter the army, are of any use to the country. Nearly all of them remain at home, a burden to their families, whom they ought to aid. This shall continue no longer. I have just visited the great manufacturing establishments in the north, and the larger workshops of Paris. I everywhere found foremen clever in the manual labor of their trades, but scarcely one among them able to draw outlines, or make the most simple calculations of a machine to convey his ideas by a sketch or written description. This is a great defect; and I will here provide the means for remedying it. *There must be no more Latin here (that will be learned in the lyceums about to be organized), but the study of trades, with so much theory as is necessary for their progress.* By this course we shall obtain well-taught foremen for our manufacturing factories.' "

That was about the beginning of French technical education. To-day France, with an area about an eighth greater than that of California, and a population of about thirty-seven millions, is the most uniformly prosperous country of Europe, and her educated mechanics are leaders in the arts all over the world.

Last year a work on this subject entitled, "Education in its Relation to Manual Industry," by Arthur McArthur, was published by Appleton. The information given in this book in respect to the progress of technical education is very full, and the arguments in favor of the system are clear and strong—to my mind unanswerable. The various government schools of France, England, Germany, Switzerland, Belgium, Italy and Russia are fully described and their success shown, while for every depression in trade, for every case in which any of these countries appears to lose its former prestige, the universal remedial proposition seems to be, "Let us make our technical education still more efficient." Space will not permit a review of the work done in all these countries, although McArthur's descriptions are most fascinating reading.

The quotations from Stetson show what the English were about in 1868 and 1869. This is what McArthur says of her later on:

"The first impulse they (the technical institutions) received was probably owing to the competition growing out of the Crystal Palace Exposition, where Great Britain saw herself behind other nations in the artistic effects of her industry, and when she promptly commenced that energetic career of reform in art-education which soon carried her work to the front rank among her rivals in subsequent expositions. The leadership of France in the department of industrial art was seriously threatened, and, disregarding for the moment the assumed superiority of her artistic traditions, a commission was appointed which was for a long time engaged in ascertaining what had been done among her neighbors for the technical training and industrial educa-

tion of skilled artisans. This was followed not only by important changes in her great technical institutions, but several lesser schools sprang up to give instruction in the manual processes of art to her workmen."

\* \* \* \* \*

In reference to this country, he says:

"No modern people, with a country so rich in its own resources, has cultivated less sparingly its peculiar energies. Indeed, an effort to convince our representative men of the necessity of industrial education is regarded as an equivocal innovation, and in many quarters is met with a discouraging sneer, and it is suggested that American enterprise and pluck will supply the deficiencies of ignorance. The example of other nations should serve to rouse us to a sense of our condition, or we shall be subjected to all the consequences of a dangerous foreign rivalry. With the means of supplying ourselves, we lavish our treasure upon other countries for commodities which could be made by our own artisans, if they were properly instructed in the theoretical knowledge of their art. The natural resources of the countries upon whom we lavish such immense sums are greatly inferior to our own, but by their system of educational training they have raised themselves to wealth, and made us dependent upon them to supply a considerable portion of our wants and luxuries. Switzerland, with her sterile rocks and arid mountains; Germany, with little naturally to rely upon, except its sleepless toil and patient industry; France, that had no common school until now; and England, that cannot produce food to feed her own people—furnish us with such immense quantities of things and conveniences as almost to defy belief; and our importing merchants have their agents ransacking the industries of Europe for the regulation of our markets and the disposition of our resources."

"What we need in this country is a correct public opinion on the relation of education to industry."

"Suppose we manufactured our own linen, it would stimulate the supply of flax, which can be grown in the United States of as good quality as in Europe, and laborers now idle by the thousand might cultivate the crops on land now unused; while mills and operatives to manufacture the fabric and the machinery will introduce a great industry. So of hemp, of wool and woollen goods. We import vast quantities of iron, steel, copper, lead, zinc and the beautiful articles into which all the metals are fabricated, and yet these materials are found in widely-diffused abundance within our own limits. And sometimes it happens that multitudes of our own people are suffering for want of work, for the simple reason that there is greater skill used abroad in these trades than that which our workmen have an opportunity of acquiring."

"A bale of cotton is computed to be worth five hundred dollars, but when manufactured it is supposed to be worth two thousand dollars. The baser metals are often converted, by mechanical skill, into forms which assume a value exceeding their weight in gold. Owing to a peculiarity in our domestic

habits, the use of glass is immensely extended. Our manufacturers have acquired great proficiency, equaling and often surpassing in strength and beauty any of that made abroad. We have the best material possible, and there is no reason why these beautiful fabrics, unless from want of artistic skill, should be imported; yet four millions worth of imported glass was consumed last year (1881) in the United States."

It must not be supposed, however, that there are no technical schools in this country, for there are several excellent ones, such as the Free Institute at Worcester, Massachusetts, the Illinois Industrial University, the Massachusetts Institute of Technology in Boston, the Polytechnic School of Washington University at St. Louis, and the Stevens Institute of Technology at Hoboken, New Jersey.

"The Worcester Free Institute was founded in 1865, by John Boynton, who gave the sum of one hundred thousand dollars for its endowment and support. In his deed of gift he says: 'The aim of this school shall ever be the instruction of youth in those branches of education, not usually taught in the public schools, which are essential and best adapted to train the young for practical life, and especially that such as are intended to be mechanics, or manufacturers, or farmers, may attain an understanding of the principle of science applicable to their pursuits, which will qualify them in the best manner for an intelligent performance of these businesses.

"The Hon. Stephen Salisbury made an additional gift of two hundred thousand dollars.

"The Hon. Ichabod Washburn, of Worcester, gave the Institute a machine-shop and provided it with its equipments, and a fund of five thousand dollars to be expended for stock, and the interest of fifty thousand dollars to provide for contingencies."

The catalogue of 1880 says:

"The Institute has graduated nine classes, aggregating one hundred and eighty-six students. The ease with which more than ninety per cent. of these young men have secured honorable and lucrative employment in stations for which their training especially prepared them, confirms the confidence of the trustees in the soundness of the general principles upon which the school is organized.

"The course of study embraces a period of three years, and, while some studies are pursued by all the classes alike, every student has to select at some time during the first year some department in which he must devote ten hours a week to practice until his graduation—that is to say, for two and a half years students who select chemistry work in the laboratory; the civil engineers at field work; those who select drawing in the drawing-room; and those who select physics in the physical laboratory. The mechanical section practice in the workshop to the end of the term; and after the latter have been sufficiently advanced they receive instructions in designing machinery, and undertake also the building of one or more complete machines from their own drawing. The class of last year constructed a Corliss engine."

The Illinois Industrial University, at Urbana, Champaign county, "has a College of Agriculture in which to educate agriculturists and horticulturists; a stock farm; an experimental farm, with all apparatus and breeds of cattle, together with numerous orchards, exotics, greenhouses, gardens, and all that can give practical knowledge in farming and aid in the development of an agricultural science. The school of mechanical engineering aims to fit students to invent, design, construct and manage machinery for any branch of manufacture. There is also a college of natural science, and one of literature and science; to these is added a school of military science and a school of art and design," etc.

Of the other schools mentioned, Mr. Arthur says: "Without going into particulars, it may be briefly said that the object in these schools is the special and thorough training of engineers, architects and chemists in attainments far advanced beyond the means or knowledge possessed by our colleges or universities."

I think the California University would do well to copy from the Massachusetts Institute of Technology:



"Its regular curriculum comprises nine courses, viz: One in civil and topographical engineering; one in mechanical engineering; one in mining engineering, or geology and mining; one in building and architecture; one in chemistry; one in metallurgy; one in natural history; one in physics, and a general course containing several subdivisions. Many other branches are also established, such as mathematics, the French and German languages, English history and literature, political science, international law, mechanical drawing, stone-cutting, microscopy, photography, mechanics, electricity, and a very great list of other details and subjects of study. Indeed, there is no branch of science, as applied to industry, which is not embraced in the courses.

"The students are required in term-time to make visits of inspection to machine-shops, mills, furnaces and chemical works, and to visit important buildings and engineering constructions within convenient reach, and in vacations more extended excursions are made for the survey of mines and geological features, and for the study of metallurgical works and noted specimens of engineering."

Concerning the standing of science schools in our educational system, General Walker, who is at the head of this one (the Massachusetts Institute) says:

"I would have the highest class of schools that teach industrial or mechanical work like our own Institute, the Sheffield School at Yale, and the Troy Polytechnic and the classical or literary universities and colleges in the same grade, the graduates of the mechanic schools conceded the same standing and as much social recognition as the bachelors of arts receive from the world. *The primary and grammar and high schools should teach the rudiments of mechanics as they do the elements of letters*, so that those who choose to enter the industrial colleges shall have that preparation that is so essential to success in the higher courses pursued there."

To my mind the most astonishing examples of common sense methods in education are to be found in Switzerland and Massachusetts. Speaking of the former, a French minister says:

"From among these sterile rocks there is exported every year an amount of products sufficient to pay for all the importations made, and more especially for the two hundred millions francs' worth of goods which France alone sells to that people, which in former times cultivated mercenary warfare as its sole branch of industry; and the country produces, besides, so many skillful men that in every commercial city of the world a Swiss colony is found holding the first rank; and in almost every great commercial house may be found intelligent clerks who have come from Bâle, Zurich or Neuchâtel."

The area of Switzerland is 15,250 square miles—less than one-tenth the extent of California. Yet, in spite of its limited territory and its great sterility, it supports a population of over two and one half millions!

I think, however, that Massachusetts fairly beats Switzerland at all points.

Mr. Preston of South Carolina, in a speech made many years ago, declared that "the only material productions for exportation from Massachusetts were granite and ice. Perhaps there is no spot in the land where Nature has provided so scantily and exacted so much to make it the abode of industry, and yet there is scarcely any other in the present age where so vast a trade has been managed."

Massachusetts has an area of 8,040 square miles—very little over half the extent of Switzerland. She stands, in this respect, No. 41 in the list of

States and Territories; but her population, which always appears to be on the increase, was, in 1880, 1,783,085 ! In taxable property she stands second in the Union—next to New York. Her valuation for taxation in 1880 was \$1,648,000,000, or more than \$900 for every man, woman and child !

It is worthy of remark that both these little Commonwealths, remarkable at the same time for their sterility and wealth, have been equally noted for their love of education. Every student of education has heard of Pestalozzi and Agassiz and Horace Mann, and there is no need to rehearse the long list of the scholars, poets and orators of Massachusetts.

No other community on this earth, everything considered, has been so successful in amassing wealth, and no other similar community did or does now expend money so freely in the establishment and support of its elementary schools. Massachusetts is also foremost in educational supervision. Does it not look as if the free outlay of money for the industrial education of the masses were the best method of enriching the State?

Pennsylvania has the reputation of being rather miserly in her management of the common schools. She pays her teachers poorly, and notwithstanding her greater extent, more abundant natural resources and better commercial position, she has but twelve hundred and forty millions to Massachusetts' sixteen hundred and forty-eight. Is this mere chance?

#### INDUSTRIAL DRAWING.

It may be impracticable to teach the rudiments of mechanics in the Grammar and High Schools—although I think not—but there is one subject which is most intimately interwoven with technical education which we can teach and which is sadly neglected. I refer to Industrial Drawing, and by that I mean not the ornamental copying, upon which so much time has been wasted, but drawing directed to the industries—such, for example, as is now done in Mr. McDade's class in the Evening School, under the direction of Mr. Cumming at the Boys' High School, and in Mr. Raymond's classes at the University. It is worthy of remark that these gentlemen have all had the benefit of full technical courses.

Mr. McDade is a graduate in Science and a mechanical draughtsman and pattern-maker by occupation. Mr. Cumming is a graduate of the Mechanical Department of the University of California, and tool-maker and machinist by profession; while Mr. Raymond is a graduate of the Washington University of St. Louis. They all combine the scientific and manual training. They possess the qualifications which, before long, all the teachers of our higher classes must possess.

#### THE PROPER METHOD.

In the foregoing pages I have endeavored to show at least one way in which we waste time and effort by giving too much attention to a branch of instruction which is comparatively valueless, and, at the same time, one way in which, by losing sight of the objects of public instruction, we neglect a very important feature which constantly becomes more and more of a necessity. Fearing that my personal views, although reached after an extended examination of this subject, might not have carried sufficient weight, I have

fortified myself with quotations showing, not only what is thought of the system wherever it has been tried, and the necessity for its general adoption, but how and where information is to be gained by those who wish to investigate the question.

The ancient education had for its object mental culture alone, although, incidentally, much useful knowledge was discovered. This led to the next step—study, not only as a means of culture, but as a means of preparation, at least, in habits of thought for the higher education which took place when the student embarked upon the business of practical life. This led thoughtful educators to assert that a direct study of science, that is, of the true laws of nature, tested at every turn by intelligent experiment, would furnish the best preparation for those desiring to take part in the arts and industries of civilization, which must ever be based upon those laws; and, at the same time, the best mental culture. This plan, still resisted by the adherents of the 'elegant gentleman' school, while it gives due prominence to the study of the sciences, leaves, in great part, the study and practice of the arts for the business period of life. It cultivates the brain through the medium of useful knowledge; but leaves the hand uneducated. The new education, of which the necessity is best seen by those teeming populations to whom nature has been least generous, proposes that the schools shall train the minds of the students by investigating the natural causes of things and the effects which must spring from these causes, and that, in addition, they shall better than ever before prepare for comfortable living by training the hand to dexterity in the arts and industries which must be followed to gain a livelihood, and it is urged that the greater the laborer's knowledge of practical science and the higher and better trained his manual dexterity, the greater will be his skill and the higher his remuneration; and, further, that the more general the extension of this school knowledge of science and art, the more prosperous the nation or community must become.

There can be little doubt of the desirability of this system, but its practical introduction into the elementary schools calls for grave deliberation.

Teachers alone, by reason of their ignorance of mechanics and the arts, would not be well fitted to make the change, and trades-people, through their ignorance of the science of education, would be equally unfit. Here again I am forced to claim that a Board of Inspectors who could study the industrial pursuits of the community would be best able to formulate a plan, educationally practicable, by which the greatest necessities of industrial education might be introduced at the least expense and with the smallest disturbance of the existing utilities. Lacking this method, it would be well to have a joint commission of practical educators and tradesmen consider this question.

As has been shown, England was able to make the necessary changes almost at once, and the reasons are, first, because the Inspector is the central figure in her educational system; and, second, the expenses were at once furnished by the Government.

Having provided for instructors in drawing and art, they at once established institutions for the training of teachers, and we have seen the result—they who, by their own admission, were behind most of the nations of Europe, and even the United States, in many of the higher walks of art, within comparatively a few years threatened the superiority of the foremost nation, France.

THE PROPOSED CITY CHARTERS—WHAT SHOULD BE DONE.

No branch of our municipal government is more sadly in need of improvement in its laws than the School Department. Since the adoption of the New Constitution two charters for the government of this city have been prepared, submitted to the people, and defeated by the popular vote. While the Article on Education in the first was objectionable, for reasons which were at the time explained, some of the changes proposed were excellent. In the matter of education, the second proposed charter was almost wholly bad. The best propositions of the first charter were ignored, and it looked almost as if the instrument were drawn in the interest of private institutions of learning, so detrimental to liberal public instruction were its provisions.

The charter of 1880 proposed an unsalaried Board of Education, to be appointed by the Mayor. It was to consist of eight members, who were to serve for four years; but the first Board was to be so classified by the Mayor that two members should drop out every year. This in itself was a great improvement; but the Freeholders went further in providing for the election by the Board of Education of "four qualified persons, who shall hold office during the pleasure of said Board, and who, together with the Superintendent of Common Schools, shall form a Board of Inspectors of Common Schools." It was further provided "that no teacher shall be employed or dismissed except on the recommendation of the Board of Inspectors of the Common Schools." The duties of the Board of Education applied exclusively to the business affairs of the Department; those of the Inspectors exclusively to the educational. The weak points in the plan were, first, that the Mayor might appoint a rascally Board of Education, and, second, that the Board of Inspectors, being appointed and holding office during the pleasure of the Board of Education, might be coerced by them.

This Board of Freeholders also, although hoping to conduct the city government on a tax of one per cent., provided for a school fund of not more than twenty-seven dollars per pupil in average attendance during the preceding year, and for the setting apart by the Auditor of not more than twenty-two dollars "for each pupil in average daily attendance," as a salary fund.

It is scarcely necessary to refer to the last proposed Charter, that of 1883, further than to say that it would have passed but for the opposition of the teachers, and that it was an exceedingly lucky thing for public education in this city that it did not pass. Our schools are now in a condition sufficiently poor. Tens of thousands of dollars are being lost to the people, because, for lack of means the Board is unable to make necessary repairs.

Children are sickening from being packed in ill-ventilated and poorly drained buildings; but under the provisions of the last charter the schools could not have been decently conducted for more than seven months annually.

Notwithstanding their parsimony and apparent indifference to the well-being of the Department in other respects, even this Board of Freeholders provided for *two* Deputy Superintendents, so that each set of charter-makers recognized the necessity for an enlargement in our inspecting force. Of course, the proper way to avoid complications and at the same time give the Inspectors that independence without which they cannot be efficient, is to turn over the business affairs of the schools to the Supervisors or to the Board of Public Works, and appoint a Board of Inspectors—that is, experienced teachers—as the Board of Education. I would remind future charter-makers also that in providing for a Board of School Inspectors they should look to the possible future growth of the city. At present there is hard work for five inspectors in this city, and provision should be made for the appointment of one additional for every increase of fifty thousand in the population.

At both Charter elections the list of Freeholders was made up from both political parties, thus securing the return of those placed upon the ticket. In both Boards the legal profession was well represented, and, as a natural consequence, both Charters take pretty good care of the gentlemen of the law. Now, while I willingly admit that which so many deny, namely, that it is necessary to have lawyers to make laws, I would suggest that when the next Freeholders' ticket is made up it might be well to place some one thereon to represent the forty odd thousand children and seven hundred and fifty teachers on the rolls of this Department. I submit that the just and economical management of an army of that sort is not so simple that any one can do it.

To conclude in relation to charter-making, I have only to say, be liberal and practical in school allowances. Imitate Massachusetts. Look at Roston. She is not liberal in school matters because of her wealth but she is wealthy because of her liberality.

Now that I have shown the good that might be done for the schools by a Charter, I think it is pertinent to ask, must the schools, at least many of them, continue in a state of semi-efficiency until a change in the laws brings relief? Must we permit written examinations with their improper training—so-called tests which hide at least as much as they show—to take the place of live examiners and trainers who would assist both teachers and pupils; showing the former how to teach, and the latter how to learn—just because funds are short? I think not. It is better to do well whatever we attempt. If the funds are not sufficient to conduct the schools properly for the entire year, then, I would say, close the schools, or a portion of the schools, for a portion of the year; but while we are at work let us work skillfully.

## SCHOOLS.

As I have already lengthened this report beyond the limits originally intended, and as the reports made during the year in relation to particular schools show very fairly the general condition of the Department, I shall dismiss this branch of my subject with a brief report upon the progress of our one technical school—the Commercial—and upon the change in the classification and course of study of the Boys' High School.

## THE COMMERCIAL SCHOOL.

The success of the first graduates had, as might have been expected, the effect of causing a rush for places at the beginning of the next term. The Board, however, was rather slow in appointing assistants to meet the increased attendance, and one of those appointed was very frequently absent through sickness. There were at this time but two assistants in the school, and my report to the Classification Committee says of the Principal: "He really does two-thirds of the entire work of the school. This cannot last." As you are aware, it did not last. Mr. Leszynsky's health gave way, necessitating his absence during July, August and September.

As the public generally are unacquainted with the working of this practical business school, I submit the following quotations from the report mentioned above:

"The book-keeping work is very neat and accurate, and is performed with great rapidity.

"Commercial law, or rather the portion of it which is necessary to safety in business, is taught with great clearness.

"The manner in which the students trade with one another, for cash, on account, and for notes, as well as the suspicion with which the business ability and integrity of some are regarded, is highly interesting. Should a pupil have ever failed in business through unlucky speculation, or otherwise, he can get nothing on his note without one or more excellent endorsers. Does another sell on time, he is certain to calculate closely whether or not, the margin of profit over the loss of interest is sufficient. Should some one endeavor to buy all the goods of a certain brand, in order, having no competition, to sell at a higher profit, and should he, in doing this, arrange to favor certain of his endorsers or creditors, the law is at once invoked to prove fraud.

"Interest is charged on deferred payments; notes are discounted, expenses calculated, and profits arranged to cover them; retail prices, making allowance for expenses, delay in selling, falling off from asking prices, proprietor's profits, etc., are rapidly calculated from the wholesale cost, and the arithmetic arising from these transactions is performed with great quickness and precision.

"The school is well supplied with 'college money' and 'goods,' and there are banking, brokerage and express offices, in which the business is conducted by the students.

"The pupils are started in business with a certain capital in money of the school. They are cautioned, or they very soon learn, that they may easily buy goods, but they cannot always sell them at a profit, and further, that the apparent gain is often swallowed up by the expenses of expressage, drayage, rent, clerk-hire, stationery, etc.

"Any person who closely observes the students of this school will see that, so far as their work is concerned, they are, to all intents, a commercial community, honestly endeavoring to make gains through their transactions with one another, well knowing that it takes forethought, close attention and brains to outstrip their neighbors."

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"The work is of such absorbing interest that pupils daily beg permission to remain at their desks after the hour of dismissal.

"Under such conditions it is not surprising that the general order is almost perfect."

The check system does not exist in this school.

The applications for admission were more numerous than ever at the beginning of this term, many of the graduates of both the High Schools being applicants. The attendance is now over two hundred—almost equal to that of the Boys' High School; and, if there were proper accommodations, there is no doubt it would be much greater, as many applicants have been unable to gain admission.

During the absence of Principal Leszynsky in Europe the school was ably managed by Mr. Webster, the first assistant. Latterly, however, the order has been a little unsteady. Since the return of the Principal and the introduction of a system by which the responsibility for deportment is thrown almost entirely upon the pupils themselves, everything is as smooth as possible.

#### THE BOYS' HIGH SCHOOL.

To check the great disorder caused in part by sending the students from room to room for instruction, I was directed, at the beginning of this term, to prepare a new course of study and plan of classification for this school.

The following paragraphs from my report adopted by the Board show the principal changes of classification:

"The custom heretofore existing of requiring students to change rooms at every change of lessons is hereby abolished, and, as a general rule, students shall not be required to leave their class-rooms except to attend the lessons of the teacher of Science, or to receive special instruction from the Principal.

"No class shall be organized with fewer than forty-five pupils, and any class in which the attendance falls to twenty-five shall, if practicable, be consolidated.

"A special class, to be known as the University Class, shall be made up of such pupils of the three divisions (junior, middle and senior) as intend to take the classical course at the University of California. Latin, Greek

and French will here take the place of Arithmetic, Industrial Drawing and Geography."

The principal changes made in studies were an increase in Mathematics, including Arithmetic and Geometry, an increase in Natural Science, the introduction of Industrial Drawing and Geography, and a corresponding decrease in Ancient History and Literature.

These changes have been in great part nullified by permitting the University class to absorb about three-fifths of the attendance.

Mr. Mann has been rated special teacher of Classics, and Mr. W. White is acting as special teacher of Mathematics. The Principal also teaches a portion of the University division.

A work-shop for the use of those studying Industrial Drawing and the Natural Sciences has been started, but it is very insufficiently supplied with tools and apparatus.

It would cost very little to make the instruction given in the Boys' High School more practical and technical, and this should be done. I am pretty certain that one reason for the poor deportment of the High School boys, of which we have heard so much, is that they see no practical outcome for a great portion of the studies they pursue, and hence they cannot see that they lose anything by idleness and mischief. I venture to say if the Classics and History as at present conducted were replaced by a common-sense system of technical education in the Boys' High School, the students would be just as orderly and eager to learn as those of the Commercial School or of the carpenter shop of the Lincoln School in Oakland.

Respectfully submitted,

J. O'CONNOR,  
Deputy Superintendent.



## REPORT OF THE INSPECTING TEACHER.

SAN FRANCISCO, July 1, 1885.

HON. A. J. MOULDER, *Superintendent of Common Schools*:

SIR: In compliance with your request, I herewith submit my annual statement. As much of my work is of necessity confidential, I can only present you with such general opinions and suggestions as may occur to me in my daily routine of duty.

During the year I have continued the visits to the schools, inspecting the work and advising with principals, teachers and parents. A record of these visits has been kept in your office, and all reports filed with the proper committees.

In regard to the work of inspection, I find the teachers willingly receive any suggestion I may offer for the better management of their classes; and, with few exceptions, I notice an earnest, well-directed ambition existing among them.

The poor health of many of our teachers is one great drawback to success, and I question how far I am justified in alluding to it as incompetency. It would be strange, indeed, if in a large working department of over seven hundred, none were found disabled by long continued service. We must therefore expect a certain proportion always to be on the sick list; but since we have no system of furloughs, these sick ones, worn out partly by home burdens, will show a persistent determination not to yield to the strain. The result is, many are working under a tension of nervous debility that must surely affect the success of their work. An over-taxed nervous system is sadly out of place in a crowded schoolroom, and an otherwise efficient teacher may be misjudged in consequence. The fact that we have steady school work for ten months in the year may account for it. If I am not mistaken, there is no other city that gives so long a term of schooling to its children; well for them we have a climate that permits it.

That we have incompetency in the Department no one will deny, but it will always be hard to reach and correct the evil while the law gives a defence—justly so—to teachers. Only well-established evidence, procured in all fairness of dealing, should have weight. In the inspection of the classes, as regards their relative standing by grades, I find about one-third of the pupils examined to be imperfectly ranked, or over-graded. Several things may help to bring this condition about, and the teacher bear no part of the blame: diversity of opinion and judgment in the decisions for promotion; difference in the standard for excellence in the various schools, and

over-anxiety of principals to please parents and to increase classes for the sake of gain in salary will cause it, and so long as salaries are based on grades and the number of classes over-grading will certainly ensue. The interest of the children will surely be bartered to their injury. The root of the evil should first be removed, and the salaries ranked on higher and safer considerations.

In regard to the instruction given in the different branches, I notice, in many classes, a marked improvement in the manner of recitations, especially in Geography. Spelling from the Reader is often neglected for that of the Word Book, on the ground that the latter is harder. This is a mistake, since the words of the Reader are used with their true relation and significance, while the Word Book is abstract in the extreme. The results in Grammar are quite vague and unsatisfactory, while in Arithmetic, which study generally runs low, I find much time and application lost by giving too *severe tests* of the work explained. Not enough drill of simple principles is given, but too much elaboration of thought and reasoning, which only wearies the mind and produces confusion. The present condition of affairs throws a double obligation on the Board of Education to see that only good teachers are elected. The substitute list should be kept well graded, that none but the best are put there on trial, and at least one-half of this list should be filled from our Normal school.

For their *manner* of teaching the teachers themselves are personally responsible, and should be held accountable. Full liberty should be allowed them to demonstrate their own mental qualifications. True, many feel that they are hedged in by a system of martinet rules and methods of their principals; yet they are content to abide by them simply because principals who subject teachers to this servile adherence to an iron-clad programme, unconsciously offer, at once, a *perfect shelter for incompetency*. So long as a useless teacher can plead "*Obedience to orders*," no matter how great her inefficiency, she will be excused. That the character and success of the schools depend largely on the principals, none will dispute, and if *they* fail to exhibit a broad, thorough supervision of their classes, there will be more or less failure. Teachers should therefore understand that their record depends on their class' work and duties, and if attended to in a prompt, intelligent manner, with due regard to all the amenities of conduct, and respect for proper authority, they have little to fear from a critical public, or Board of Education. I can but wish that some of them would be less fretful with their pupils, bearing always in mind that cultivation must needs have years of time and patience, and that they would strive to give their instruction in their own well-selected language and not depend too slavishly on the text book. Earnestness in the teacher will beget it in the class. Children are peculiar in their likes and dislikes; so are teachers, and strive against it as we will, the sentiment of our feelings will infuse itself into our mental work. The child will work better for and with the teacher he re-

spects and loves, and principals should make it a study how to harmonize these mental differences and idiosyncracies. The combination of philosophy, or, better still, *common sense* with discipline, is a marvelous lever of success, and certainly, it is not incompatible with the dignity of the position of principal.

While I find some who have this happy natural way in teaching—and I would like to speak their names to you in higher praise—I find others equally earnest, still following the lifeless methods so common to teachers who do no thinking, or planning of work for themselves. This form of incompetency the live principal will root out of his school without fear or favor, for with such a principal only live teachers will be sustained.

One great error among these narrow teachers is the habit of teaching fifty or more pupils through the attention of five or six *bright* ones; in other words, they teach the *few* and leave the *many* to listen, or give the latter such hap-hazard attention that discouragement, laziness and mischief are sure to follow.

I do not underrate the text-book. I believe in the right use of it, and if the pupil is properly taught to study a paragraph, to fully comprehend its words and the ideas beneath them, it is a habit that will serve him well in after years when he seeks knowledge for himself. But to the *child* the book work is a nonentity without the living teacher to explain, beautify and vivify the text for him. It is like a landscape at midnight—without shadow and without form, yet throw the light of day upon it and it becomes a reality.

Fortified with a good voice, and ready with the most apt and beautiful forms of language, the teacher is better equipped for success than many suppose, hence I suggest that in our institutes, and in our Normal classes, very prominent importance should be given to those exercises that will best develop these powers. Not that I undervalue a reasonable amount of mathematical drill, but that I believe the personnel of the teacher is a powerful magnet in the training of children, especially the little ones. I also suggest that if most of the work in the course of instruction were arranged by topics, instead of a specified number of pages as at present, a more eclectic field would be opened for gathering ideas and methods from our best authors.

In examining certain classes under instructions from the Committee, I invariably found the first evidence of neglect to be shown in the penmanship, and I cannot forbear the statement that if teachers would be more watchful over this branch, they would perceive a general improvement running through their whole work. The instruction required in both writing and drawing, if given correctly, will develop certain traits, both mechanical and mental, needed in all study, more or less, such as precision, business execution and neatness. Some of the penmanship of our Seventh and Eighth Grades is a marvel of excellence—in fact, it excels much in the Grammar School; yet I would fail to explain why after reaching the Fourth Grade we find so much *poor writing*. I can only report it as downright neglect of the rules for it. Coupled with *this* neglect there will surely follow a correspond-

ing slackness in all the minor details of the class work. The decimal point will be omitted, tables incorrectly learned, geographical spelling ignored and slovenly recitations in any topic accepted. In such a class nothing is *exact*. Report cards are forgotten or are unreliable; the monthly register is kept by guess work; books are torn or destroyed, pencils and pens are wasted; orders are imperfectly carried out because not listened to; the teacher herself is tardy four or five times in a month, yet parents are continually receiving notes about the tardiness of her pupils. They visit the teacher for co-operation, but she is brusque and hasty, and a very disagreeable time ensues. Now, I do not pretend to say that the study of penmanship causes all of this, but I do say that neglected writing is proof of something wrong in the teacher, which a little will or judgment could correct. Furthermore, I assert that much of the incompetency in the Department does not arise from lack of book knowledge, but from general inefficiency of character, or a positive disgust for the business.

Complaint is often made that grammar pupils, who are transferred to our central schools from those known as ungraded, or outside schools, are unequal in scholarship. This should be thoroughly tested, and it would be well to specially examine the grammar pupils in these schools to determine their relative standing and the best possible arrangement for their future progress. Grades should be consolidated closely as possible, so that not more than two grammar grades shall be in one class.

Undoubtedly there are conditions existing in these schools which affect the general annual results, and which are not found in our better graded classes. These conditions should be fully understood, and parents removing to or from such districts should be prepared to have their children placed where they can best progress, regardless of the mere *name* of the grade. In one of these schools I found the higher class consisted of three separate grades, in which three distinct courses of instruction had to be daily taught. There were four second grade pupils, ten third grade pupils and over twenty-five fourth grade pupils. The teacher, being principal, had also to supervise the whole school. It will be seen at once that the actual time and attention which each grade received through the day were not much. Children are not supposed to have any better control over their minds than adults have, yet very few, even of the mature, can pursue a steady train of thought, or study in the same room when other topics are being orally discussed. The chances are that pupils thus working will neglect their own legitimate tasks. It was thus with this class in particular. The third grade could do some of the second grade work, but they utterly failed in their own. The second grade pupils suffered the most, losing much of the year's work specified for them; probably because, being most excellent scholars, they were left to fight their own battles alone. I advise a special course to be drawn up for these schools.

I also repeat my suggestion made in my last report of the need of another ungraded class to be located in the vicinity of Market, Sacramento, and

Drumm streets. It is one of the greatest questions at the present time what to do with the "incorrigible cases," and the sooner we decide that question the better it will be for all concerned. The number is not large, indeed it is surprisingly small for a Department of nearly forty thousand children, and it speaks well for our schools that the rampant "hoodlumism," so prevalent in past years among our boys, is greatly on the decrease. With a steadily increasing enrollment, and plenty of good, wholesome class rooms to gather them into, we may hope to see this element in the growth of San Francisco well curbed and well prepared for a place in the unwritten annals of our future great city.

Most of the principals and teachers have faithfully carried out the wishes and instructions of the Board of Education in regard to Corporal Punishment, still there are a few schools where the rod is evidently the mainspring of government. In one school of about six hundred pupils, for the last five months of the year, the reports show that the corporal punishment reached *forty five per cent* of the whole school. In another one of about six hundred and sixty pupils, the record for the same time was *thirty-four per cent.* of the whole school. In contrast with this it is certainly worthy of notice, and to the credit of the principals, to have the reports show that in a school as large as the Lincoln Primary, having an average daily attendance of twelve hundred, that only *six per cent.* of the whole school had been punished with the whip for the same time, and the Lincoln Grammar, with about the same enrollment for the same time, only *five per cent.* of the whole school.

Yet, it must not be supposed that, in consequence of this great and radical reduction of corporal punishment, girls have neglected to be troublesome, or that boys have forgotten to be bad. The same evil tendencies and antagonisms still exist. Tardiness is still unsubdued and truancy prevalent as ever, and I hold that those principals who have conscientiously endeavored to give force to official instructions in this matter, should be most thoroughly sustained in all reasonable efforts to restrain the vicious and disorderly. The Public School is not a reformatory institution. The teachers are employed for a specific purpose, and that is to *teach* the children, to educate them, and when a class numbers fifty or sixty pupils—in some instances seventy or eighty—a great wrong is wrought in obliging the teacher to *neglect the positive good* of many, in order to restrain and punish the few whose nature, actions and wills are in daily opposition to education. As a rule, the evil tendencies of the bad over the good are far more potent than the reformatory influence of the good over the bad, and the teacher who contends against this natural condition is working against odds that will, in the end, conquer if help and support are not rendered. Hence, I urge the establishment of intermediate classes that shall be ungraded, not altogether for deportment, but for the individual training of pupils who cannot keep pace with the better graded classes, and if parents are averse to their children attending them, let them first of all make the *home influence* and au-

thority so strong in their just, but kindly exactions, that there will be no need of punishment. That teachers will sometimes make mistakes and be indiscreet cannot be denied, but the greater number of our teachers are earnest and true in their efforts to secure the best good of their pupils.

It has been said of late that in spite of our school system the "Street Arab" is not yet conquered. Is there any other country, if I may except Japan, where he is under better control and subjection than here? It is yet an open question, it seems, what is the full scope of the American Public School. Is it merely missionary in its nature for the *unfortunate*, or is it a grand national legacy for the proper training of citizenship? How far and in what direction shall the State have the right to educate her youth for that important duty? What preparation shall be given? Shall the mental alone or shall the *industries* be combined to subserve the greatest good for the State? Who shall receive it and how far shall we inculcate the principles of honor, integrity and patriotism in that training. In a neighboring city a boy wished to know why the 22d of February was a holiday; his teacher either would not, or could not tell him. So I presume that in many of our classes it would be hard to find an intelligent knowledge of the Declaration of Independence, or of our Constitution. These questions are the topics of the hour, and sooner or later they will be answered.

If there is any one direction in which my work has been a special gratification, it is in the consultation with parents regarding cases of discipline for immorality, or viciousness of character, especially among the girls. In many of these instances I have found parents sadly in need of counsel, which, generally, they have received with appreciation; and oftentimes this mutual help brings about a better condition for the pupil. This is a cosmopolitan city. There is hardly a nation that is not represented in our schools, with its own peculiar views on *moral responsibility*. Some come from homes governed by rigid scrutiny, while others come with little or no perception of the right or the wrong; to them, and to their parents, all habits are right if *natural* to the child. Indeed, I have often been perplexed to witness the great difference of opinion among parents on this subject of vicious habits. Many are intensely hurt and grieved over the wrong-doing of their children, while others stoically extenuate it, and even grow insolent because it is punished. Others are vindictive to such an extent that it is almost impossible to eradicate disobedience from the child. To be able to reach this element of parental stoicism and reason with it, has been sometimes my task, and the good resulting from such consultation is, as I have said, a great satisfaction.

In conclusion, I cannot urge too strongly that more attention be paid to this personal moral training in our schools. It should not be spasmodic or confined to any one grade, or left to the *eccentric* teacher to do. It should be a daily consistent building of character running through all the class

work, associated with all the child's plans and strivings for excellence, coloring all its thoughts, speech, manner and general bearing as a scholar. It may call for a closer, more persistent hard work from the teacher, and exact from him or her a higher standard of personal excellence, but the broad humane instructor will, by instinct, guard well the moral trust which the position involves.

Trusting that the new fiscal year which we now enter upon will be replete with honor and success for our schools and the administration of our department, I remain,

Most respectfully,

LAURA T. FOWLER,  
Inspecting Teacher.

## REPORT OF THE PRINCIPAL OF THE GIRLS' HIGH AND NORMAL SCHOOL.

SAN FRANCISCO, August, 1885.

ANDREW J. MOULDER, *Superintendent of Common Schools* :

DEAR SIR—In accordance with your request, I hereby submit a brief report of the Girls' High and Normal School for the school year ending June 30, 1885.

JOHN SWETT, Principal.

### ANNUAL STATISTICS—1885.

Whole number of pupils enrolled during the year.....	869
Average number belonging.....	869
Average daily attendance.....	698
Per cent. of attendance.....	95
Number of school days in the year.....	207
Whole number of teachers.....	19

### GRADUATES OF THE GIRLS' HIGH SCHOOL.

The Graduating Class of 1885 numbered 179. The following table shows the number graduated annually since the organization of the school:

1865.....	20	1876.....	90
1866.....	13	1877.....	101
1867.....	34	1878.....	154
1868.....	33	1879.....	186
1869.....	18	1880.....	205
1870.....	35	1881.....	187
1871.....	36	1882.....	170
1872.....	31	1883.....	159
1873.....	50	1884.....	215
1874.....	54	1885.....	179
1875.....	88		
Total.....			2,068



**NINETEENTH ANNUAL COMMENCEMENT EXERCISES, MAY 26,  
1885, AT THE GRAND OPERA HOUSE.**

**ORDER OF EXERCISES.**

1. Introductory Address by the President of the Board of Education.....Hon. Ira G. Hoyt
2. Song, "Day is at last departing".....Raff
3. Essay, "Nothing that is, can pause or stay".....Maud Wood
4. Essay, "He sings to the wide world, and she to her nest ;  
    In the nice ear of Nature, which song is the best ?".....Viola Bruce
5. Song, "Eastern Bells".....Krug
6. Essay, "Sweet Sixteen".....Sarah Samuels
7. Song, "Voice of the Western Wind".....Barnby
8. Essay, "Girls".....Laura M. Browne
9. Song, "Good-bye".....Abt
10. Presentation of the Class to the Board of Education by the Principal.....John Swett
11. Delivery of Diplomas by the Superintendent of Public Schools...Hon. Andrew J. Moulder

**LIST OF GRADUATES, 1885.**

Altshuler, Hannah J.	Collins, Addie L.	Fechheimer, Rose F.
Bailey, Clara B.	Corde, Bertha Jean	Fitzpatrick, Mary E.
Barber, Charlotta C.	Cox, Arthurlena H. S.	Fleishhacker, Belle Claire
Barenkamp, Daisy Dell	Crouch, Sadie F.	Flynn, Mary E.
Bateman, Josephine	Croyland, Belle	French, Ida B.
Beeman, Mattie Irene	Croyland, Carrie M.	French, May Evelyn
Bienenfeld, Celia	Crowell, Irene	Forsythe, Lila A.
Bigley, Ella F.	Cummings, M. Elizzie	Gallagher, Janey M.
Blethen, Mamie A.	Dabovich, Melia M.	Gallagher, Nellie G.
Boukofsky, Rose	Daniel, Laura	Goldsmith, Delphine
Bowen, Carreno L.	De Lamater, G. May	Gormley, Katie Gray
Broderick, Nellie L.	Deming, Mary E.	Goss, Sarah F.
Broderick, Eleanor D.	Devine, Genevieve E.	Green, Jessie Adelaide
Bragg, Ethel A.	Devine, Mary Ella	Greenham, Elizabeth M.
Brown, Hattie	Dodge, Kate Freeman	Hagedorn, Anna C.
Browne, Laura M.	Downing, Ada A.	Hatch, Lida E. F.
Bruce, Viola	Doyle, Maggie E.	Harrold, Veronica M.
Buckley, Mabel H.	Drews, Carrie S.	Heald, Emilie J.
Bugbee, Bessie Eldredge	Driscoll, Emma J.	Heick, Magda C.
Buneman, Matilda G.	Druffel, Fannie Oneida	Hentrich, Bernardine J.
Burke, Catherine D.	Dunbar, Florence May	Hill, Clara
Byers, Annie E.	Dunn, Mary	Hobart, Pearl Margaret
Carlson, Hilda Mina	Durham, Lizzie Loretta	Hobe, Anna E.
Carr, Nellie T.	Dusenbury, Julia	Hopkins, Leoline C.
Case, Martha S.	Dutton, Hettie B.	Howard, Lulu Louise
Cashin, Lillie C.	Ellerhorst, Dorothea E.	Hughes, Zoe E.
Church, Lillie L.	Elliott, Elizabeth L.	Hurley, Mary
Claiborne, Rosa V.	Emanuel, Julia	Hunt, Lisette Marie
Coffin, Laura B.	Fairman, Madge Beebe	Hyde, Mary F.
Cole, Augusta W.	Falk, Ernestine	Hyman, Emma

Jacobs, Carrie	Miller, Frances L.	Sheldon, Jennie May
Jensen, Ettie Genevieve	Miller, Mamie Scoble	Shepard, Grace S.
Jolliffe, Harriet Howard	Monson, Lillian Ward	Smith, Florence
Jones, Lillie	Moran, Louise A. L.	Smithson, Lulu
Jones, Mary J.	Mugan, Mary Stuart	Snook, Anita Adele
Kahn, Mary R.	Murphy, Annette M.	Somers, Mae
Kalisher, Amalia	Neumann, Elizabeth M.	Squire, Gertrude E.
Kearns, Ella R.	Nolan, Cecelia B.	Stone, May
Kelly, Elizabeth E.	O'Brien, Nora	Strachan, Allie F.
Kelly, Kate	O'Kane, Ella Rose	Strauss, Emma B.
Kelly, Maggie F.	Onyon, Emma J.	Swayne, Helen M.
Ladd, Katie R.	Page, Mary Swann	Sweigert, Mary E.
Lamb, Sophia A.	Peiser, Bertha	Taylor, Ginsay Fowler.
Lawless, Agnes J.	Pendleton, Florence Beebe	Taylor, Maude Eloise
Levy, Rebecca C.	Pendleton, Lillie Eugene	Thomas, Kate Agnes
Lewis, Annie	Phelan, Annie L.	Thomson, Alice M.
Lichtenberg, Rosalie	Pragg, Hattie	Todd, Eva F.
Lichtenstein, Frances	Prior, M. Matilda	Usher, Mamie V.
Lichtenstein, Rachel E.	Randolph, Abbie H.	Van Den Berg, Jefferita D.
Love, Annie A.	Reddy, Maggie A.	Veeder, Angie S.
Maxwell, Catherine A.	Rightmire, Jessie A.	Warren, Lydia Marcelle
May, Lizzie	Riordan, Minnie	Waterman, Eugenie J.
McCullough, Marie L.	Rogers, Aphra	Wertheimer, Theresa G.
McDonough, Catherine F.	Samuels, Sadie F.	Whitney, Nellie Sumner
McKee, Eva M.	Samuels, Sarah	Wilson, Fannie Lauretta
McLean, Ida Louise	Schmidt, Selma	Wood, Annie Miller
McQuaide, Katie Gustina	Schweitzer, Cora M.	Wood, Maude M.
McVerry, Katie A.	Seeligsohn, Rose	Worley, Minnie Greenstreet
McGill, Mary	Selleck, Mattie Estelle	Zekind, Theresa.
	Shapero, Hattie E.	

## HONORARY ESSAYS.

1. "Auld Lang Syne".....	Rosa V. Claiborne
2. "Time to Mend".....	Kittie R. Ladd
3. "Conquerors".....	Lillie C. Cashin
4. "Fashions".....	Rose Seeligsohn
5. "Autumn Leaves".....	Nellie S. Whitney
6. "The World's Future".....	Anna C. Hagedorn
7. "The Progress of the Sixteenth Century".....	Maggie E. Doyle
8. "Music".....	Delphine Goldsmith
9. "Michael Angelo and Raphael".....	Carrie Jacobs
10. "The Voyage of Life".....	Katie Burke
11. "What shall the Harvest be".....	Eva Todd
12. "Hitch your Wagon to a Star".....	May Stone
13. "He that would Eat the Egg must first Break the Shell".....	Laura Daniel
14. "Forms of Water".....	Lizzie Elliot
15. "Silence".....	Frances Miller
16. "Six Days shalt thou Labor".....	Rosalie Lichtenberg
17. "My Opposite Neighbor".....	Charlotte Barber
18. "The Fine Arts".....	Ida McLean
19. "Not Done but Doing".....	Carreno Bowen
20. "The Duty of the Biographer".....	Elizabeth E. Kelley

## THE NORMAL DEPARTMENT.

The Normal Department was limited to 66 pupils, made up of graduates of the High School, admitted in the order of their rank in graduation.

The highest rank in the Normal Class was attained by Miss Frank Hodgkinson, and, in accordance with a resolution of the Board of Education, she was elected to the first succeeding vacancy in the Substitute Class.

The number of graduates from the Normal Department, since its organization, is as follows:

1877.....	31	1882.....	125
1878.....	25	1883.....	54
1879.....	37	1884.....	56
1880.....	70	1885.....	64
1881.....	86		
Total.....			548

## COMMENCEMENT EXERCISES.

The ninth annual commencement exercises of the Normal Department were held in the High School hall in a quiet and informal manner, no visitors being present except the officials of the School Department. The diplomas were awarded by Dr. C. T. Deane, Chairman of the Committee on Classification.

## LIST OF GRADUATES.

## CLASS OF 1885.

Adams, Idella M.	Ellis, Marce	Marks, Bertha R.
Amos, Fannie	Fiala, Ada	Meeker, Charlotte L.
Axford, Minnie	Fay, Katie	Mello, Becky C.
Bartlett, Finnie	Fleming, Annie M.	McGauley, Julia C.
Bergson, Lena A.	Frapolli, Adele	McTamney, Martha
Bloom, Celia	Gould, Lucy	Monthrop, Annie E.
Bretz, Bertha M.	Greenhoed, Fannie	Mouthrop, Emma
Broadfield, Daisy	Gregg, Lottie	Nunan, Kate
Bryan, Lillie A.	Grote, Sophie A.	Otto, Lottie C.
Brown, Mary L.	Harvey, Mary A.	Paul, Florence K.
Burnett, Rita	Highfield, Hattie	Poppe, Martha H.
Casey, Mary	Holland, Julia A.	Pyne, Mary E.
Clark, A. W.	Hunter, Isabel	Rutherford, Helen
Conlon, Helen D.	Hodgkinson, Frank.	Scheier, Rose
Cohen, Esther	Jewett, Susie M.	Simmons, Lillie M.
Cusheen, Lillie A.	Kalmuk, Lillie	Smith, Adelaide M.
Daniel, May W.	Kinney, Lizzie M.	Stolz, Rose
Dennis, Lizzie	Lahaney, Maggie	Stone, Eva
Donahue, Johanna	Laidley, Lulu B.	Walcott, Minnie J.
Doud, Mary	Lebatard, Adelina R.	Wulffing, Frances
Downey, Mary L.	Martin, Eleanor L.	

OF COMMON SCHOOLS.

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CLASSIFICATION OF THE GIRLS' HIGH SCHOOL, AUGUST, 1885.

Normal Department .....	1 class .....	80
Senior Department .....	5 classes .....	225
Middle Department .....	5 classes .....	232
Junior Department .....	6 classes .....	283
Total .....		<u>820</u>

JOHN SWETT.

## REPORT OF PRINCIPAL OF BOYS' HIGH SCHOOL.

HON. ANDREW J. MOULDER, *Superintendent of Schools*:

DEAR SIR—In accordance with your request I submit the following report of the work of the Boys' High School for 1884-1885:

Enrolled during the year.....	325
Promoted without examination—	
Senior Classes.....	25
Middle ".....	26
Junior ".....	54
Promoted on examination—	
Senior Classes.....	33
Middle ".....	24
Junior ".....	35
Failed of promotion—	
Senior Classes.....	2
Middle ".....	10
Junior ".....	24
Total present at end of year.....	233

There has been little in the work of this school during the year to call for special comment, or to interest any except those more closely connected with the work of governing or teaching. The studies pursued have been the same as for some years past and the only changes have been in matters of detail. The anticipated loss of pupils from the establishment of the Commercial School has not occurred. The large number enrolled in that school shows a demand for the kind of training offered there, but few of them, apparently, are drawn from the Boys' High School, for the year closed with about forty more in attendance than a year ago, a much larger number than the usual annual growth.

Of even more importance than the increase in pupils is the decrease in the number of those who leave during the year. At the end of last year the loss during the year amounted to nearly forty per cent. of the total enrollment (not counting those who took transfers to the Commercial School). This year it has been about twenty-eight per cent. It is matter for serious regret to all friends of education that so many should drop out of school before completing the course, even though it is a common experience in all boys' schools, especially in the West. Various causes unite to produce it—the chief one, no doubt, being the unwillingness of parents and pupils to give the time necessary for thorough training for the business of life, and the feverish desire, almost universal on this coast, to "get to doing some.

thing." [The loss is not confined to the High Schools, for the Grammar Schools have the same experience, and even in the Primary grades, which offer only the barest and most indispensable education, the loss is equally great. It is idle, of course, to declaim against a tendency and feeling that seem to be the natural and necessary adjuncts of life in a new and undeveloped country where vigor and force often bring success more surely than careful training and higher culture. The matter is referred to here because the fewness of the graduates of the Boys' High School compared with the number who enter has been made by some a ground of criticism on the assumption that somehow or other the methods of teaching, the course of study or the general plan of the school is responsible for the loss. Such an assumption is not only unnecessary but quite untenable in view of similar losses in all boys' schools of the country. But it is, at any rate, gratifying to know that the loss is growing less, since its lessening shows an increasing appreciation of the value of education. At present the graduates of the Boys' High School number about thirty-three per cent. of those who enter. The proportion was much less formerly. A graduate of about ten years ago informs me that his class numbered five on graduation and two hundred on entering !

I would respectfully suggest that the work of the school might be made more efficient by special arrangements, which would not interfere at all with the routine of other schools, but which require special legislation of the Board to authorize the Principal to carry them out. They are these—

1st. A single session from 8 A. M. to 1 P. M. instead of two sessions. This plan is very common in High Schools, and is generally favored, I believe, wherever it has been tried.

2d. Arrangements by which pupils shall be required to attend for recitation only, being excused whenever not thus engaged. It might be well to try this plan with the higher classes first, making it a privilege dependent on satisfactory standing in lessons and behavior.

The benefit of these arrangements, in my opinion, would lie chiefly in the assumption involved in their adoption, that boys of the High School are old enough to be considered men and treated as such. I feel sure that such treatment would do more to create and maintain a manly feeling than any other means at our command, and would leave us free to withdraw the privilege from any who show themselves undeserving of it. It would moreover greatly lessen the work of the teachers, nearly all of whom are under the necessity of teaching one class while supervising another engaged, theoretically, in study, but, in fact, unless the teacher gives as much attention to them as to his class, often giving more time to play than to their books. It would not be well, perhaps, to adopt such a plan for the lower schools, but it seems to me quite practicable for High Schools, and one of the best means of enforcing good order and good work.

3d. I cannot close this report without entering my protest against the assumption on the part of the public that good work can be done in a High

School with so few teachers as are employed. Those who have to control and direct the schools are quite as well aware of the impossibility as the teachers themselves, and no blame is attached to the Board of Directors. Nor is the evil by any means confined to the High Schools. It is simply impossible to do good teaching in High School studies with more than twenty to twenty-five pupils in a class. Any larger number makes the work simply hearing of recitations, not teaching, and leaves the task of teaching to the pupil himself, and a self-taught pupil is seldom a well-taught pupil.

It is suggestive to look at the reports of private schools and compare the number of pupils per teacher with the number in public schools. Private schools are established and conducted like other private enterprises, to make money. It may fairly be assumed that their proprietors do not employ any more teachers than they need to do the work laid down in their courses of study, and do it well, and there is a constant motive for keeping the number of teachers as small as can safely be done without losing patronage. I happen to have at hand the catalogues of three such schools, one in San Francisco and two in Oakland. They show in the aggregate 311 pupils and 34 teachers, or a little less than nine pupils to each teacher. If we leave out of account special teachers of drawing, etc., usually employed in private schools, it will still be found that private schools employ more than one teacher for every fifteen pupils, and no proprietor of one would think of trying to get on with a smaller force. These schools, too, are of about the same grade as our High and Grammar Schools, in which the minimum of pupils to each teacher is set down at more than three times as many. With so many the best teaching is impossible, and cannot fairly be exacted. Of course careful grading does something to lessen the evil of such large classes, but genuine teaching will never be possible because the teacher has no time to exert a personal influence on the pupil or give him the attention that his peculiar traits require.

The work of the school year was closed with the usual commencement exercises, held in the Metropolitan Temple. The program was as follows:

#### OVERTURE.

1. Introductory remarks..... Andrew J. Moulder, Superintendent of Common Schools
2. Salutatory..... C. P. Hanley

#### MUSIC.

3. Oration..... F. J. Waizman
4. Class History..... A. C. Hooper

#### MUSIC.

5. Essay, "Socrates before his Judges"..... J. J. Lermen
6. Debate, "Resolved that Greek and Latin should be taught in the Public Schools"....  
..... Affirmative, S. M. Van Wyck, Jr., Classical Senior  
..... Negative, E. D. Peixotto, English Senior

#### MUSIC.

7. Class Prophecy..... F. P. Landon
8. Valedictory..... G. H. T. Jackson

## MUSIC.

9. Presentation of the Class.....Principal F. A. Blackburn  
 10. Delivery of Diplomas and Closing Remarks.....  
 .....Ira G. Hoitt, President of Board of Education

## MUSIC.

The diploma of the school was conferred on fifty-nine graduates, in three courses, as follows:

## CLASSICAL COURSE.

Clark, C. B.	Hooper, A. C.	Swift, E. D.
Cordes, H. J.	Houston, F.	Theisen, S. J.
Craig, W. T.	Lazarus, A.	Trautner, R. E. F.
Delvalle, J. I.	Lermen, J. J.	Van Wyck, S. M., Jr.
Haley, J. U.	Murphy, F. D. A.	Waizman, F. J.
Hanley, C. P.	Ross, F.	Wolf, J.

## LATIN COURSE.

Brewer, J. M.	Haskin, J. R.	Landon, F. P.
Durbrow, C. J.	Hollis, W. H.	Painter, A.
Erlanger, S.	Jackson, G. H. T.	Topliz, M. P.
Grunbaum, M. L.		

## ENGLISH COURSE.

Batten, J. B.	Kincaid, G. F.	Peixotto, E. D.
Brosnan, J. A.	Lastreto, E. R.	Roeding, G. C.
Chenery, L. E.	Lenfestey, G. K.	Rottanzi, T. A.
Cook, L.	Martin, F. M.	Sachs, H.
Ephraim, J. A.	McDougall, G. B.	Schwartz, S.
Gerstle, W.	McFarlan, A. C.	Sinclair, L.
Gove, J. H.	Meyer, S.	Sinclair, N.
Grundel, H.	Neppert, G. P.	Waterman, W. B.
Holmes, C. E.	Newmark, S.	Wharff, F. L.
Jory, H. J.	Noble, C. A.	Widber, A. C.
Kessing, W. H.		

F. A. BLACKBURN,  
Principal.



REPORT OF ACTING PRINCIPAL OF COMMERCIAL  
HIGH SCHOOL.

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COMMERCIAL SCHOOL, CITY, August 4, 1885.HON. A. J. MOULDER: *Superintendent of Public Schools.*

DEAR SIR: I herewith submit to you the second annual statement of the Commercial School, of the City and County of San Francisco:

The present is an age of progress, hence of innovation. It is an age of great schemes and high endeavors in every department of human action, therefore, must be an era of experiment. The public school, the most sacred institution of the genius of this Republic, of which succeeding generations are the living memorials, must ever have its usefulness enlarged, their aims ennobled, its work made *practical* as well as theoretical, by being in sympathy with the pulse-beat of popular improvement. For this result educators must be inventive in system, mobile in practice, ready to profit by, and suggest from experience, and to modify or abandon trite methods wherever reason or experience dictates superior ones. Conservatism is a strong element in society, sometimes resisting beneficial mutation. This is quite noticeable in educational institutions. The history of public education in those states where it has been fostered in the most liberal manner justifies this statement. For example, stubborn was the struggle and ungraceful the concession of those who contended that a liberal education was almost exclusively confined to the study of Greek and Latin. Instruction in these languages is a factor of higher education; but in this age of science their relative position has been greatly modified. In these practical times the higher departments of our public schools should afford academic, commercial and industrial instruction. The large majority of the young necessarily are to engage in commercial, agricultural or mechanical pursuits. Therefore, devoid of aims of sufficient vitality to carry the great mass of men to the sunny heights of the ideal, our age modestly and quite properly concerns itself with "fare and lodgings" only, spending its thought and labor on what is termed "material interest." In this spirit was the Commercial School established.

Question was frequently and properly asked by parents, who could afford to educate their children somewhat beyond the limits of the grammar school, "Why is it that our children are confined to instruction mainly classical, literary and scientific? Why should they not gain some knowledge of those things which will most likely be of use to them in business life?" It is just for the State to educate my neighbor's son in classics, literature and science;

but for his education is it just to compel my son, who, perchance, proposes to pursue a different vocation in life, to adopt the same course of study? Should not he, too, have the privilege of selecting studies which will fit him for his business life? The answers to these questions appear in the presence of this school. For some years Deputy Superintendent O'Connor advocated the establishment of a school of this character. The Directors who recently retired, consummated the plan with much opposition. In July, 1883, it was a department of the Boys' High School. In February, 1884, it was segregated from that school and became an independent institution, designed to impart theoretical and practical instruction in those branches that not only discipline the mind, but the knowledge of which will be of immediate practical utility to those who graduate.

The wisdom of establishing this school is demonstrated by its marked success. In February, '84, thirty were enrolled. During the year 1884-85 there was an average daily attendance of one hundred and two. Up to this date of the year 1885-86, two hundred have applied for admission, of whom one hundred and eighty-five have been assigned to seats, thus completely occupying the present seating capacity of the building.

To review briefly the course of study, it may be stated that instruction is given in practical and theoretical book-keeping, theoretical being supplemented by the practical by *actual* business transactions. Offices are arranged for banking, importing, jobbing and express. Merchandise is represented by cards, and paper money is employed. Students are placed in various kinds of business, as dry goods, hardware, real estate, stocks, etc., are furnished with capital and compelled to trade, passing through all the forms that any mercantile house in general follows. These daily transactions constitute a set of entries that is the basis of book-keeping. Thus the student transacts his business and keeps his books at once.

Higher commercial arithmetic, embracing interest, bank discount, partial payments, averaging accounts, accounts current, partnership settlements, banking and general average, short methods, etc.; commercial law, commercial geography, composition and business correspondence and the study of English to improve them, elementary physics and *constant drill in penmanship* are included in the course. Recently the Board of Education accepted the offer of the U. S. Stenographic Machine Agency to place twenty machines without expense in this school and appointed Miss H. Smith as instructor in their use. Five sections of twenty students each receive a daily instruction of one hour, and to date have exhibited much interest in their work.

The completion of this course in one year, the time assigned to it, demands the closest attention and best efforts of those who attempt it. The fact that of eighty students but thirty-six, and thirteen of these conditionally, were deemed worthy to receive diplomas of graduation last May, is a proof of this statement. That those who fail to graduate in May, may have an opportunity of attaining the necessary degree of proficiency without remaining

another year, an advanced class is established that graduates in December. Two enrollments occur annually, in July and January, the latter being necessarily limited because designed only to supply the places of those graduating in December. To be admitted to this school, the applicant must present satisfactory certificates of graduation from a grammar school.

Business habits, being the prime credential to admission to a business house and the first essential to general business success, must be cultivated by the students of this school. Strict obedience to orders, faithful and prompt performance of tasks imposed, attention, diligence, punctuality and attention to one's own business are expected and compelled. A spirit of self-reliance is taught. One who is not determined to undertake a year's hard work should not attempt this course, for he can not accomplish it as many in our last class discovered.

"Percentage" and "checks" are sparingly used. Records are made and diplomas assigned almost entirely upon the judgment of the teachers, based upon uniform, steady and satisfactory work from month to month. "Cramming" is useless and quite impossible. If a student neglect work for the first six months of the year, he may rest assured that cramming for the remaining months will be of little avail.

A class of fourteen young gentlemen graduated from this school in July, 1884. Again in May of this year eight young ladies and twenty-eight young gentlemen received diplomas. Of these thirteen were withheld until their recipients could exhibit a *greater degree of proficiency in penmanship*. Of the class of '84 thirteen secured positions within ten days subsequent to their graduation, and the remaining not many weeks after. As far as my information extends all of these enjoy the confidence of their employers and have received advancement, one being in receipt of a salary of one hundred and twenty-five dollars per month.

Of the class leaving the school this year, fourteen, all young men, are now employed in mercantile houses.

Of the one hundred and eighty-five now enrolled as students in this school twenty-eight are young ladies. The average age of these students is sixteen years five months. Ten are graduates of, and thirty have attended, high schools. Of those that come from grammar schools seventy-eight per cent. exhibited honorary or recommended certificates. Eighty-eight per cent. were born upon the soil of California. An examination of the occupations of the parents or guardians reveals conditions from poor to wealthy and a large variety of the departments of human industry.

From what has preceded it has been learned that the privileges of the school are extended to both sexes. Upon reflection it seems well that young women should receive instruction of this character. In determining the kind of education to be given to a child, its future career must be considered. It will occur to a thoughtful mind that a knowledge of business transactions must ever be useful to a woman to protect her in her rights whether she be unmarried or married to either a man in the acquisi-

tion of whose competence she must assist, or to a man who can place at her disposal wealth and its attendant luxuries. Marriage is the generally assumed end of female existence; and ordinarily a great mistake, as can be testified by hosts of women, is made by parents teaching the showy accomplishments of the drawing-room, while the solid acquirements, which would enable her to manage property or find lucrative employment, are disregarded. "What is the use of teaching a girl more of arithmetic than will enable her to foot a bill?" is too frequently the argument of a parent, when planning the education of his daughter. And this bad reason descends through all classes. The consequence of this utter want of education in regard to the common business of life is in many cases disastrous. Few women have sufficient information on such subjects to render them capable when they are left alone. And even if they retain friends to the last, they lose some respect of both husband and sons from their ignorance of things which men know because they have been taught, and women do not know because of their lack of instruction. Women should gain a sound and business-like training, very different from the present system of idle accomplishments, for by it they would acquire firmness, and a capacity for affairs which would prevent them from being quite such facile dupes, as they now too frequently are, to designing business men and selfish husbands. Experience has proved that when women are placed in positions where these qualities can be developed, there is rarely any deficiency of them in the female character.

Why should idle prejudice any longer exclude women from taking their place wherever intellect is required? The business of the world must be more equally divided between the sexes before either will completely fulfill its vocation. It cannot now be said that women are unfit for the business of life; for not wholly upon the strong arm does it depend, but upon the acute intellect. Let our schools then give practice in the weapons of the modern battle of life. Let our girls learn to design. Let them become acquainted with commercial law that they may protect their interests. Let them learn book-keeping and the higher branches of arithmetic, and it will not be long ere merchants and bankers will give them employment.

Owing to the absence of Mr. Leszynsky, I shall be silent upon suggestions for the course of study. That gentleman proposes to inspect the educational institutions of Europe and this country, and business colleges particularly, and will return, no doubt, to modify by improved methods the course of instruction, particularly in the actual business department.

In behalf of the principal and teachers, permit me to present our grateful acknowledgments for the sympathy, encouragement, generous aid, and fostering treatment that have been bestowed upon this school by yourself, your deputy, and the members of the Board of Education.

Very respectfully, your obedient servant,

REGINALD H. WEBSTER,

Principal *pro tem*.

## REPORT OF PRINCIPAL OF EVENING SCHOOLS.

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SAN FRANCISCO, August 15th, 1885.

HON. A. J. MOULDER,

*Superintendent of Common Schools of San Francisco :*

DEAR SIR—In compliance with your request I hereby submit a brief report of the San Francisco Evening Schools for the school year ending June 30th, 1885.

Very respectfully,

A. H. MACDONALD,

Principal Lincoln Evening School.

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## REPORT.

The Evening Schools of San Francisco are becoming more popular and more useful each year, and their importance can scarcely be appreciated. Very few in our city are aware of the great benefits derived from them.

The stand the last Board of Education took in re-electing the teachers of the Evening Schools, as a whole, had a good effect on the teachers and upon the scholars by retaining experienced teachers in their former positions.

The crowning benefit to the Evening Schools was the position taken by the present Board, almost immediately after entering office, in placing the evening school teachers on the same footing as the day school teachers, by doing away with their annual election and transferring them, from one service to the other, when desired.

During the year ending June 30th, 1885, there were thirty-five evening school classes organized in the city, as follows: Twenty-three in the Lincoln School building, four in the South Cosmopolitan Primary, three in the Washington Grammar, two in the Mission Grammar, and one each in the Spring Valley Grammar, Haight Primary and Franklin Grammar buildings.

On account of the scarcity of funds, as well as the small number in attendance, the present Board, soon after its organization, consolidated with other classes those of the Mission Grammar, one of the Washington Grammar and the classes of the Spring Valley and the Franklin Grammar.

Both the interest and the attendance kept well up until the close of the day schools. During the two extra weeks taught in June, only those expecting promotion and to graduate from the First Grade and the Commercial classes, attended regularly.

At the closing exercises held on the 13th of June, 1885, thirty-five pupils from the First Grades and twenty-two pupils from the Book-keeping classes received their Diplomas. By giving these diplomas publicly, great enthusiasm was aroused in the First Grades and the Book-keeping classes.

The majority of pupils will work with greater energy when practical recognition is thus made of their efforts.

#### EXPERIENCED TEACHERS.

As the evening school pupils are in school but two hours each evening, at the longest, and very many of them but one and a half to one and three-fourths, all the learning and all the teaching must be accomplished in that time. There is no time to study out of school hours, hence every faculty and energy of the teacher must be concentrated in that short time. The work must be thoroughly systematized, and every minute occupied; therefore the best teachers obtainable should be secured for the Evening Schools—a laggard or a careless teacher soon discourages a class.

As pupils attending the evening classes work during the day, they gain practical knowledge that day pupils seldom possess, and are keen to appreciate the active teacher, and soon get tired of the teacher who fails to interest them in their studies.

Pupils who work all day and strive so hard for an education, and regularly attend every school night in the year, deserve the very best the Board can give them.

#### THE DEPORTMENT CLASS.

Many fears were expressed by real friends of the schools that a deportment class would not work well. The expectations of its advocates, however, were realized.

The deportment class was established at the Lincoln School. None were allowed to remain in it except such as were sent there from other classes. A pupil causing unnecessary trouble was placed on trial in the deportment class, and the teacher there in charge was required to report upon each pupil at the end of the month, and oftener if required. Pupils having good reports were then reinstated in their classes with a good record, while those having but fair reports were continued for another month, and those reported as being incorrigible were excused from further attendance.

The result was that, probably, nine-tenths of the pupils placed in this class immediately determined upon obtaining the highest record, in which efforts they did so well that they soon gained admittance into their own or other classes of the same grade, where they continued to do well in both deportment and scholarship.

The incorrigible being excused, the deportment class became one of the best-behaved classes in the building.

No corporal punishment or violent measures of any kind were used to secure good behavior, except to place the pupils on trial as above stated.

Better order was secured in the other classes, and many pupils thus retained in school who might otherwise have done worse and been finally suspended.

In my efforts to raise the standard of *morale* of the schools, I received the cordial support of the teachers, who followed all the suggestions given them, and showed willingness to advance the interest of the pupils.

The support and aid given by members of the Board of Education are cheerfully acknowledged and appreciated, and I feel we have made a long stride in the direction desired. Greater interest is manifested now in the Evening Schools of the city than at any previous time, and if this interest is continued till we have none but practical and successful teachers, who will secure regular attendance, good order and proficient scholarship, our Evening Schools will be second to none in their importance.

A. H. MACDONALD,  
Principal Lincoln Evening School.

## REPORT ON SEWING IN THE PUBLIC SCHOOLS,

To A. J. MOULDER, *Superintendent of Public Schools* :

DEAR SIR—In response to your request, permit me to submit the following report of our

## EXPERIMENTAL SEWING CLASS.

The class was composed of thirty little girls from the Fifth and Sixth Grades, care being taken to select those who could not sew, or, at best, very little, and whose mothers or guardians were employed from home or had not the time to teach them.

Never having seen sewing taught in school, and that I might test the matter, at least to my own satisfaction, I took entire control of the class.

Work was continued three months, with three half-hour lessons weekly—Monday, Wednesday and Friday from half-past two to three o'clock—after regular school hours in those grades.

Our lunch-room, with its long table, made a good work-room, where we could keep boxes holding our goods and belongings. It was well understood that permission to attend this class was given by the teacher and would not be granted to those who made no effort during the day. To be permitted to enter this class was considered a privilege, and parents frequently made the request on behalf of their children.

The Board of Education kindly allowed me ten dollars for the purchase of the necessary material to begin with; and Mr. Raphael Weill, a former member, who was much interested in the project, gave me *carte blanche* at the White House. I selected a variety of pretty gingham and calicoes—without starch or dressing—a piece of soft toweling, thread, needles, pins, etc.

The girls were not called together until I had cut and prepared for sewing ten aprons and a lot of towels, the former suitable for children of eight years.

To the first lesson each girl came provided with a thimble and a card upon which her name was plainly written. After some general directions as to the size of thread and needles, kinds of stitches, and care of hands, I distributed the pieces, giving to one a sleeve, another a body, a third a ruffle, and so on till all were supplied. When one piece was carefully finished, another kind was given for the next effort. The lesson over, each one folded her work, and pinned her name upon it, so that she could readily find it at the next lesson; also enabling me to intelligently scrutinize what had been done, and lay aside such as required special attention.



The success attending my class was largely due to the interest the girls felt in making or "building" a garment, and the satisfaction of knowing that their work was "Good for something."

It is true that some aprons suffered in the making, and were considerably worn before completion; that sleeves were sometimes "done" and "under-done" until renewal became necessary; nevertheless, I favor the idea of "utility" in preference to the hamming of squares or like—to the average child—aimless work.

My experience convinced me that sewing can be successfully taught to as large a division as can Arithmetic, Drawing or any other of our ordinary branches; and that, as our schools now are, one or two hours a week might be given to it with none but good results.

Classes could be conducted with small expense, since parents would gladly furnish the material. I would suggest the Fourth, Fifth and Sixth Grades as the best place to inaugurate the work, and that it be *optional*.

Respectfully yours,

JEAN PARKER.

Broadway Grammar School, Aug. 3, 1885.

## SECRETARY'S REPORT.

*To Andrew J. Mould r, Esq., Superintendent of Common Schools:*

DEAR SIR—In compliance with your direction, I submit the following report:

### GENERAL STATISTICS.

Population of the city (U. S. Census 1880).....		234,144
Number of youth in the city under 17 years of age June, '84.....		90,468
Increase for the year.....	5,582	
Number of youth in the city between 5 and 17 years of age who are entitled by law to draw public money .....		69,000
Increase for the year.....	5,871	
Valuation of city property for the year ending June 30, 1885.....		\$223,509,560 00
Increase for the year.....	\$21,745,798 00	
Total amount of revenue for city purposes for the year...		\$3,788,157 00
Decrease for the year.....	\$418,466 39	
Total income of the School Department for the year, including cash on hand July 1, 1884.....		\$896,340 94
Increase for the year.....	\$112,087 48	
Per cent of the total revenue of the School Department on the whole revenue raised by the city for the year...		23
State and city tax for 1884-85 on each hundred dollars ...		\$1.57 7-10
City school tax on each hundred dollars.....		.1136 cts.
Estimated value of school sites.....	\$1,980,000 00	
Estimated value of school buildings.....	1,017,000 00	
Estimated value of school furniture.....	205,000 00	
Estimated value of school libraries.....	12,000 00	
Estimated value of school apparatus.....	25,000 00	
Total value of school property.....		\$3,189,000 00

### SCHOOL ATTENDANCE.

Enrollment in the High Schools.....	1,319
Boys, 423; Girls, 896.	
Decrease for the year.....	57

Enrollment in the Grammar Schools, including some Primary grades.....		14,230
Boys, 6,887; Girls, 7,343.		
Increase for the year.....	118	
Enrollment in the Primary Schools, including some Grammar grades.....		24,695
Boys, 12,839; Girls, 11,856.		
Increase for the year.....	1,163	
Enrollment in the Evening Schools.....		3,021
Boys, 2,774; Girls, 247.		
Increase for the year.....	99	
Whole number of different pupils enrolled during the year in all the public schools.....		43,265
Boys, 22,923; Girls, 20,342.		
Increase for the year.....	1,323	
Average number belonging to High Schools.....		1,169
Decrease for the year.....	41	
Average number belonging to Grammar Schools.....		11,910.8
Decrease for the year.....	30.68	
Average number belonging to Primary Schools.....		19,569
Increase for the year.....	763	
Average number belonging to Evening Schools.....		1,202
Decrease for the year.....	44	
Average number belonging to all the public schools.....		23,850
Increase for the year.....	647	
Average daily attendance in the High Schools.....		1,057.6
Decrease for the year.....	116.7	
Average daily attendance in Grammar Schools.....		11,449.6
Increase for the year.....	10	
Average daily attendance in Primary Schools.....		8,601.75
Increase for the year.....	753.65	
Average daily attendance in Evening Schools.....		1,074
Decrease for the year.....	47	
Average daily attendance in all the public schools.....		32,183
Increase for the year.....	605	
Per cent. of attendance in the High Schools.....		.96
Per cent. of attendance in the Grammar Schools.....		.96
Per cent. of attendance in the Primary Schools.....		.95
Per cent. of attendance in the Evening Schools.....		.89
Per cent. of attendance in all the public schools.....		.95
Average daily attendance per class in the High Schools...		.45
Average daily attendance per class in the Grammar grades.....		.61
Average daily attendance per class in the Primary grades.		.67

# OF COMMON SCHOOLS.

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Average daily attendance per class in the Evening Schools.....		.100
Per cent. of pupils enrolled in the High Schools....		.08
Per cent. of pupils enrolled in the Grammar Schools.....		.30
Per cent. of pupils enrolled in the Primary Schools .....		.57
Per cent. of pupils enrolled in the Evening Schools .....		.07
Number attending private and Church schools only dur- ing the year (including Chinese), as reported by the Census Marshals in June, 1885.....		8,544
Increase for the year .....	764	
Number attending public and private schools during the year, including Chinese.....		52,009
Increase for the year.....	5,104	
Number of children between 5 and 17 years of age (in- cluding Chinese), who have not attended school at any time during the year, as reported by the Census Mar- shals in June, 1885.....		16,901
Increase during the year.....	822	

## NUMBER OF TEACHERS IN DEPARTMENT, MAY, 1885.

SCHOOLS.	STRUCTURE.	GRADES.								Principals without classes.	Total.	SEX.	
		1st Grade.	2d Grade.	3d Grade.	4th Grade.	5th Grade.	6th Grade.	7th Grade.	8th Grade.			Males.	Females.
Broadway Grammar.....	Brick.....	1	2	2	3	2	2	2	2	1	15	15	15
Clement Grammar.....	Wood.....	1	2	3	3	2	1	1	1	1	15	15	13
Columbia Grammar.....	Wood.....	1	1	1	2	1	2	1	3	1	13	17	16
Denman Grammar.....	Brick.....	2	3	3	3	2	1	1	1	1	17	1	16
Franklin Grammar.....	Wood.....	2	2	1	3	4	4	3	3	1	19	2	17
Hamilton Grammar.....	Wood.....	2	2	3	4	4	3	3	3	1	16	2	14
Hayes Valley Grammar.....	Wood.....	1	2	3	4	4	4	2	1	1	19	2	17
Lincoln Grammar.....	Brick.....	3	4	5	6	3	3	1	1	1	23	4	19
Mission Grammar.....	Wood.....	2	2	3	5	2	2	1	1	1	15	1	15
North Cosmopolitan Gram.....	Wood.....	1	2	3	4	2	1	1	1	1	13	1	13
Rincon Grammar.....	Wood.....	2	2	3	3	3	2	1	2	1	13	1	13
South Cosmopolitan Gram.....	Wood.....	2	4	4	4	3	3	1	2	1	21	4	17
Spring Valley Grammar.....	Wood.....	1	1	2	2	1	2	2	4	1	16	1	15
Valencia Grammar.....	Wood.....	2	3	4	4	1	1	2	3	1	20	2	18
Washington Grammar.....	Wood.....	1	1	2	3	1	1	2	2	1	13	3	10
Bernal Heights Primary.....	Wood.....	1	1	1	1	1	1	1	1	1	3	1	2
Buena Vista Primary.....	Wood.....	1	1	1	1	1	1	1	1	1	4	1	4
Chinese Primary.....	Wood (rented).....	1	1	1	1	1	1	1	1	1	1	1	1
Cleveland Primary.....	Wood.....	1	1	1	1	1	1	3	8	1	13	1	13
Eighth Street Primary.....	Wood.....	1	1	1	1	1	1	1	1	1	4	1	3
Emerson Primary.....	Wood.....	1	1	1	1	1	2	2	4	1	9	1	9
Fairmount Primary.....	Wood.....	1	1	1	1	1	1	3	1	1	10	1	10
Five Mile Primary.....	Wood.....	1	1	1	1	1	1	1	1	1	2	1	2
Garfield Primary.....	Brick.....	1	1	1	1	1	2	1	5	1	11	1	9
Golden Gate Primary.....	Wood.....	1	1	1	1	1	2	2	5	1	9	1	9
Grant Primary.....	Wood.....	1	1	1	1	1	2	2	6	1	13	1	13
Greenwich Street Primary.....	Wood.....	1	1	1	1	1	2	2	6	1	13	1	13
Haight Primary.....	Wood.....	1	1	1	1	1	3	1	3	1	11	1	11
Hayes Valley Primary.....	Wood.....	1	1	1	1	1	2	2	6	1	12	1	12
Irving Primary.....	Wood.....	1	1	1	1	1	2	4	1	1	9	1	9
Laguna Honda Primary.....	Wood.....	1	1	1	1	1	1	1	1	1	2	1	1
Lincoln Primary.....	Wood.....	1	1	1	1	3	3	5	12	1	24	1	24
Lombard Street Primary.....	Wood.....	1	1	1	1	1	1	1	1	1	2	1	2
Longfellow Primary.....	Wood.....	1	1	1	1	2	3	3	6	1	15	1	15
Lobos Avenue Primary.....	Wood (rented).....	1	1	1	1	1	1	1	1	1	4	1	4
Mission Primary.....	Wood.....	1	1	1	1	1	2	3	7	1	13	1	13
Moulder Primary.....	Wood.....	1	1	1	1	1	2	5	1	1	9	1	9
Noe and Temple Primary.....	Wood.....	1	1	1	1	1	2	1	2	1	10	1	9
Ocean House Primary.....	Wood.....	1	1	1	1	1	1	1	1	1	1	1	1
Pacific Heights Primary.....	Wood.....	1	1	1	3	1	1	5	1	1	12	1	12
Point Lobos Primary.....	Wood.....	1	1	1	1	1	1	1	1	1	2	1	1
Powell Street Primary.....	Wood.....	1	1	1	1	1	1	2	6	1	11	1	11
Potrero Primary.....	Wood.....	1	1	1	1	1	1	3	1	1	9	1	8
Redding Primary.....	Wood.....	1	1	1	1	2	2	2	6	1	13	1	13
Sanchez Street Primary.....	Wood.....	1	1	1	1	2	1	2	3	1	11	1	11
Shotwell Street Primary.....	Wood.....	1	1	1	1	2	2	1	3	1	9	1	9
South Cosmopolitan Prim'y.....	Wood & Brick.....	1	1	3	2	2	3	5	1	1	17	1	17
S. San Francisco Primary.....	Wood.....	1	1	1	2	1	1	1	4	1	12	1	11
South End Primary.....	Wood.....	1	1	1	1	1	1	1	1	1	3	1	3
Spring Valley Primary.....	Wood.....	1	1	1	1	1	1	3	1	1	6	1	6
Starr King Primary.....	Wood.....	1	1	1	1	1	2	2	7	1	13	1	13
Tehama Primary.....	Wood.....	1	1	1	1	2	2	9	1	1	16	1	16
Turk Street Primary.....	Wood.....	1	1	1	1	2	3	6	1	1	13	1	13
Union Street Primary.....	Wood.....	1	1	1	1	2	1	4	5	1	9	1	9
West Mission Street Prim'y.....	Wood.....	1	1	1	1	2	2	4	5	1	12	1	12
Whittier Primary.....	Wood.....	1	1	1	1	2	3	4	11	1	21	1	21
West End Primary.....	Wood.....	1	1	1	1	1	1	1	1	1	3	1	3
Jackson St. Kindergarten.....	Wood (rented).....	1	1	1	1	1	1	1	1	1	1	1	1
Union St. Kindergarten.....	Wood (rented).....	1	1	1	1	1	1	1	1	1	1	1	1
		31	39	54	68	72	70	75	193	44	646	30	616

# OF COMMON SCHOOLS.

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## NUMBER OF TEACHERS—CONTINUED.

SCHOOLS.	STRUCTURE.	No. Teachers.	Principals without Classes.	Total.	Males.	Females.
Teachers in Primary and Grammar.....		44	646	30	616	
Evening Schools.....		29	1	30	11	19
Boys' High School.....	Wood.....	7	1	8	8	
Girls' High School.....	Wood.....	19	1	20	4	16
Commercial High School.....	Wood and Brick..	3	3	3	3	
Regular substitutes.....		26	26			26
Kindergarten system.....		1	1			1
		85	47	734	56	678

## NUMBER OF TEACHERS—CONCLUDED.

SCHOOLS.	Males.	Females.
High School teachers.....	15	16
Grammar grade teachers.....	21	227
Primary grade teachers.....	9	389
Evening School teachers.....	11	19
Substitute teachers.....		26
Kindergarten System teachers.....		1
	56	678

Total.....734

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## SUMMARY OF ANNUAL REPORTS

SCHOOLS.	NUMBER OF PUPILS ENROLLED DURING THE YEAR, NOT INCLUDING PUPILS ENROLLED IN OTHER SCHOOLS.		
	Male.	Female.	Total.
Boys' High School.....	325	.....	325
Commercial High School.....	98	27	125
Girls' High School.....	.....	869	869
Broadway Grammar.....	.....	853	853
Clement Grammar.....	428	428	856
Columbia Grammar.....	450	303	753
Denman Grammar.....	.....	1,005	1,005
Franklin Grammar.....	547	657	1,204
Hamilton Grammar.....	389	390	779
Hayes Valley Grammar.....	490	609	1,099
Lincoln Grammar.....	1,446	.....	1,446
Mission Grammar.....	345	504	849
North Cosmopolitan Grammar.....	391	286	677
Rincon Grammar.....	.....	627	627
South Cosmopolitan Grammar.....	613	559	1,172
Spring Valley Grammar.....	479	475	954
Valencia Grammar.....	619	647	1,266
Washington Grammar.....	690	.....	690
Bernal Heights Primary.....	118	86	204
Buena Vista Primary.....	94	86	180
Chinese Primary.....	18	4	22
Cleveland Primary.....	485	519	1,004
Eighth Street Primary.....	174	59	233
Emerson Primary.....	291	290	581
Fairmount Primary.....	246	233	479
Five-Mile Primary.....	53	45	98
Garfield Primary.....	287	366	653
Golden Gate Primary.....	248	244	492
Grant Primary.....	471	456	927
Greenwich Street Primary.....	407	387	794
Haight Primary.....	371	327	698
Hayes Valley Primary.....	381	354	735
Irving Primary.....	318	262	580
Jackson Street Kindergarten.....	22	28	50
Laguna Honda Primary.....	40	35	75
Lincoln Primary.....	677	911	1,588
Lombard Street Primary.....	76	63	139
Longfellow Primary.....	605	515	1,120
Lobos Avenue Primary.....	108	121	229
Mission Primary.....	423	375	798
Moulder Primary.....	328	313	641
Noe and Temple Primary.....	378	312	690
Ocean House Primary.....	27	21	48
Pacific Heights Primary ..	325	301	626
Point Lobos Primary.....	51	67	118

## OF PRINCIPALS, JUNE, 1885.

Number of Teachers who subscribe for some educational journal.....	Number of Teachers who are Graduates of the Girls' High School of San Francisco.....	Number of Teachers who are Graduates of any other State Normal School.....	Number of Teachers who are Graduates of the California State Normal School.....	Whole Number of Pupils put down from a Higher to a Lower Grade after the Commencement of the School Year.....	Whole Number of Pupils Promoted from Lower to Higher Grades at the Beginning of each School Month, Not Including the First Month of the Year.....	Whole Number of Pupils Received by Transfers after the First Month of the School Year.....	Number of Days School was in Session.....	Per cent of Attendance.....	Average Daily Attendance.....	Average Number Belonging.....
28	2	2	2	6	12	12	209	97.6	259.6	266
4	2	3	2	7	46	199	199	96	100	103
4	2	2	2	2	15	207	207	95	898	300
3	1	2	2	5	22	210	210	95.5	685	716.7
1	4	1	1	4	60	210	210	96	735	765
4	5	2	2	19	77	210	210	94	573	608
5	7	2	2	27	24	210	210	96	818.5	850.5
2	5	2	2	88	22	210	210	94.9	917.6	966.2
2	6	2	2	11	7	210	210	94	650	671
6	2	3	3	26	8	210	210	96.5	930	967
2	5	3	3	17	31	209	209	97	1115.4	1156
2	9	1	1	3	82	210	210	96.7	689	713
9	3	4	4	6	29	210	210	95	532	550
1	5	5	5	1	64	210	210	97	512	537
13	7	6	6	6	28	210	210	97.3	1022	1055
4	8	1	1	7	38	210	210	96.6	784.2	816
4	6	6	6	26	111	210	210	96.3	923	955
2	6	1	1	49	68	210	210	92.9	562.9	584.4
1	2	4	4	1	19	210	210	95	141.7	154.9
1	4	1	1	1	3	210	210	92	141.1	151.9
1	1	1	1	2	107	210	210	95	13.1	14.2
1	3	3	3	1	12	206	206	92	704	741
7	7	5	5	2	98	210	210	96	200.6	218
1	6	1	1	5	16	210	210	94.5	452.6	468
1	7	1	1	2	18	210	210	93	375.9	397.8
1	6	6	6	5	1	210	210	96	79	85
8	4	1	1	36	33	210	210	94.5	432	463
2	4	2	2	3	41	210	210	95.4	433	450
2	4	1	1	9	13	210	210	94	666	700
1	4	2	2	8	3	210	210	95	617	653
1	4	1	1	13	78	210	210	92	563.5	587.9
1	4	1	1	4	10	210	210	94.9	543	574
1	1	1	1	1	4	210	210	94	414.9	437.1
1	1	1	1	1	7	210	210	95	24	26
20	11	8	8	5	97	210	210	95.3	62.4	66.6
1	1	1	1	1	2	210	210	96.8	1158	1217
4	2	2	2	4	102	210	210	95.7	102.7	112
1	3	3	3	1	30	210	210	95.4	778.1	816.9
1	5	1	1	16	11	210	210	95.7	175.3	184.9
1	7	1	1	1	21	210	210	95.9	668.2	695.2
1	1	1	1	1	143	210	210	95.9	445.9	466.3
1	1	1	1	1	57	210	210	95.7	487.1	507.6
1	1	1	1	1	6	210	210	95	41.7	43.5
1	1	1	1	1	1	210	210	95	459	482
1	1	1	1	1	18	210	210	95	80	84



## SUMMARY OF ANNUAL REPORTS

SCHOOLS.	NUMBER OF PUPILS ENROLLED DURING THE YEAR, NOT INCLUDING PUPILS ENROLLED IN OTHER SCHOOLS.		
	Male.	Female.	Total.
Powell Street Primary.....	375	298	673
Potrero Primary.....	255	212	467
Redding Primary.....	402	293	695
Sanchez Primary.....	325	315	640
Shotwell Street Primary.....	301	255	556
South Cosmopolitan Primary.....	557	528	1,085
South San Francisco Primary.....	359	286	645
South End Primary.....	88	71	159
Spring Valley Primary.....	194	185	379
Starr King Primary.....	425	410	835
Tehama Primary.....	545	358	903
Turk Street Primary.....	443	395	838
Union Street Primary.....	312	217	529
Union Street Kindergarten.....	26	35	61
West Mission Primary.....	391	394	785
Whittier Primary.....	765	759	1,524
West End Primary.....	69	65	124
Evening Schools.....	2,774	247	3,021
	22,923	20,342	43,265

## OF PRINCIPALS, JUNE, 1885—CONCLUDED.

Number of Teachers who Subscribed for some Educational Journal . . .	Number of Teachers who are Grad- uates of the Girls' High School of San Francisco . . . . .	Number of Teachers who are Grad- uates of any other State Normal School . . . . .	Number of Teachers who are Grad- uates of the California State Nor- mal School . . . . .	Whole Number of Pupils Put Down from a Higher to a Lower Grade after the Commencement of the School Year . . . . .	Whole Number of Pupils Promoted from Lower to Higher Grades at the Beginning of each School Month, Not Including the First Month of the Year . . . . .	Whole Number of Pupils Received by Transfers after the First Month of the School Year . . . . .	Number of Days School was in Ses- sion . . . . .	Per cent of Attendance . . . . .	Average Daily Attendance . . . . .	Average Number Belonging . . . . .
2	4	2	1	5	27	53	210	96	483.4	506
4	6	2	2	15	10	52	211	95.7	389.4	406.8
2	2	2	2	25	25	83	210	95	553.2	557.83
2	5	4	1	2	9	54	210	94	486	513
1	4	5	1	4	19	73	210	94.9	429.18	451.84
2	4	2	2	9	58	104	210	95.5	783	818
2	3	4	1	5	25	25	210	92	490.48	516.64
3	3	3	1	2	2	2	210	90.2	123.06	132.94
3	3	3	1	1	1	35	210	94.8	292.30	308.46
3	6	7	2	2	120	106	210	96	661	688
2	7	1	3	3	50	81	210	94.7	688	726.1
3	8	3	1	1	67	83	210	95	670	707
3	5	3	3	12	113	50	210	94	382.3	438
1	1	1	1	3	4	136	210	88	89.18	81.92
1	15	3	2	3	10	129	210	95.9	606.8	631.6
1	3	1	1	1	19	8	210	96	1188	1243
1	1	1	1	1	1	183	210	92.6	87.15	94.06
1	1	1	1	1	1	183	220	90.4	1074	1202
143	288	36	66	440	1284	3867	210	95	\$218.3	33850.7

## REPORT OF THE SUPERINTENDENT

COMPARATIVE STATEMENT OF THE WHOLE NUMBER ENROLLED AND THE  
AVERAGE DAILY ATTENDANCE IN THE PUBLIC SCHOOLS SINCE 1852.

	Number Enrolled.	Average Daily Attendance.
During the year ending October 31, 1852.....	2,182	445
During the year ending October 31, 1853.....	2,870	703
During the year ending October 31, 1854.....	4,199	1,011
During the year ending October 31, 1855.....	4,694	1,484
During the year ending October 31, 1856.....	3,370	2,516
During the year ending October 31, 1857.....	4,637	2,156
During the year ending October 31, 1858.....	5,273	2,521
During the year ending October 31, 1859.....	6,001	2,829
During the year ending October 31, 1860.....	6,108	2,837
During the year ending October 31, 1861.....	6,674	3,377
During the year ending October 31, 1862.....	8,203	3,794
During the year ending October 31, 1863.....	8,979	4,389
During the year ending October 31, 1864.....	10,981	5,470
During the year ending October 31, 1865*.....	.....	6,718
During the year ending June 30, 1866*.....	.....	8,131
During the year ending June 30, 1867*.....	.....	10,177
During the year ending June 30, 1868.....	17,426	11,871
During the year ending June 30, 1869.....	19,885	13,113
During the year ending June 30, 1870.....	22,152	15,394
During the year ending June 30, 1871.....	26,406	16,978
During the year ending June 30, 1872.....	27,664	18,272
During the year ending June 30, 1873.....	27,772	18,630
During the year ending June 30, 1874.....	29,449	19,434
During the year ending June 30, 1875.....	31,128	21,014
During the year ending June 30, 1876.....	34,029	22,761
During the year ending June 30, 1877.....	37,286	24,899
During the year ending June 30, 1878.....	38,672	26,292
During the year ending June 30, 1879.....	38,129	27,075
During the year ending June 30, 1880.....	38,320	28,150
During the year ending June 30, 1881.....	40,187	29,092
During the year ending June 30, 1882.....	40,752	29,435
During the year ending June 30, 1883.....	40,722	30,827
During the year ending June 30, 1884.....	41,942	31,578
During the year ending June 30, 1885.....	43,265	32,133

\* No record kept of the number enrolled.

## PER CENT. OF ATTENDANCE ON THE AVERAGE NUMBER BELONGING.

1860.....	83	1873.....	94.4
1861.....	90	1874.....	93.3
1862.....	90	1875.....	93.7
1863.....	91	1876.....	94.2
1864.....	92	1877.....	96.1
1865.....	92.9	1878.....	96.4
1866.....	93.5	1879.....	95.2
1867.....	93.8	1880.....	94.1
1868.....	93.75	1881.....	94
1869.....	92.7	1882.....	94.9
1870.....	94	1883.....	94.8
1871.....	94	1884.....	95
1872.....	94.2	1885.....	95

## MISCELLANEOUS ITEMS FROM PRINCIPALS' REPORTS.

Number of cases of tardiness of pupils.....	27,810
New pupils entering without transfers, girls.....	6,006
New pupils entering without transfers, boys.....	9,385
Pupils left.....	5,925
Cases of suspension of pupils.....	401
Cases of truancy.....	1,478
Cases of corporal punishment.....	8,304
Cases of tardiness of teachers.....	2,631
Number of days' absence by teachers.....	3,448
Visits to parents by teachers.....	2,600
Visits to classes by School Directors.....	2,338
Visits to classes by Superintendent or Deputy.....	822
Visits to classes by other persons.....	24,067

## NUMBER OF TEACHERS IN DEPARTMENT, MAY, 1885.

	Males.	Females	Total.
Number of teachers in High Schools.....	15	16	31
Number of teachers in grammar grades.....	21	227	248
Number of teachers in primary grades.....	9	389	398
Number of teachers in Evening Schools.....	11	19	30
Number of regular substitute teachers.....		26	26
Teacher Kindergarten system.....		1	1
Total number of teachers.....	56	678	734
Whole number of principals (included in total).....	22	41	63
Number of principals not required to teach a class (included in total)	16	31	47
Number of vice-principals (included in total).....	6	11	17

## REPORT OF THE SUPERINTENDENT

## CENSUS MARSHAL'S REPORT

WARDS.	Number of children under 5 years of age.....			Total Number of Census Children between 5 and 17 years of age.....			Native born Chinese between 5 and 17 years of age.....			Number of Indian children between 5 and 17 years of age, who live under the guardianship of white persons.....			Number of negro children between 5 and 17 years of age.....			Number of white children between 5 and 17 years of age.....		
	Chinese..	Negro...	White...	Total...	Boys...	Girls...	Total...	Boys...	Girls...	Total...	Boys...	Girls...	Total...	Boys...	Girls...	Total...	Boys...	Girls...
First .....	2	...	732	2630	12	5	7	...	...	...	...	...	3	8	...	2615	1252	1363
Second.....	...	5	1638	4919	...	...	...	...	...	...	...	...	15	23	...	4301	2424	2467
Third.....	...	...	73	272	2	...	2	...	...	...	...	...	1	1	...	269	136	133
Fourth .....	138	44	1145	2903	309	168	141	...	...	...	...	...	40	79	...	2515	1262	1253
Fifth .....	...	...	24	180	...	...	...	...	...	...	...	...	...	...	...	180	86	94
Sixth ...	122	14	446	1527	202	96	106	...	...	...	...	...	12	27	...	1298	665	633
Seventh.....	...	4	749	1891	...	...	...	...	...	...	...	...	6	8	...	1833	908	975
Eighth.....	2	8	1134	4985	2	...	2	...	1	1	...	...	17	41	...	4941	2393	2543
Ninth.....	...	4	1562	5877	1	...	1	...	...	...	...	...	4	11	...	5865	2945	2920
Tenth.....	...	26	2423	7307	3	...	3	...	...	...	...	...	25	46	...	7758	8881	3877
Eleventh.....	5	...	6768	21564	11	...	11	...	...	...	...	...	4	7	...	21546	10907	10639
Twelfth.....	1	...	4349	14445	19	1	18	...	...	...	...	...	6	12	...	14414	7200	7214
Totals.....	270	105	21093	69000	561	270	291	1	1	...	...	...	132	263	...	68175	34059	34116

OF COMMON SCHOOLS.

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FOR JUNE, 1885.

	NUMBER OF BIRTHS DURING YEAR.										NATIVITY OF PARENTS.				Number of blind children between 5 and 21 years of age.	Number of deaf and dumb children between 5 and 21 years of age.	Number of Mongolian children under 17 years of age.	Number of children between 5 and 17 years of age who have not attended school at any time during the school year.	Number of children between 5 and 17 years of age who have attended public schools at any time during the school year.	Number of children between 5 and 17 years of age, who have attended public schools at any time during the school year.																																																																																																																		
	Total....	Girls....	Boys....	Foreign born.....	Native born, both foreign...	Native born, 1 parent foreign	Native born, native parents.	Chinese...	Negro...	White...	Chinese...	Negro...	White...	Chinese...							Negro...	White...	Chinese...	Negro...	White...																																																																																																													
1490	3	141	5	984	12	1	1	1400	646	1108	180	45	76	121	2768	11	986	5	1139	12	51	1	1	2	1	160	61	2591	163	104	98	202	93	44	43	150	2	141	312	846	264	980	19	30	27	57	1067	7	219	5	1	597	1	2	51	1	2	1007	620	5791	25	185	217	402	5612	28	669	5	1	1477	13	3	4	1	2184	2057	5989	26	197	157	354	13574	5	3056	2	8	4916	3	9	7	3	6947	3989	17074	327	583	528	1111	9277	4	1710	1	3	3427	7	16	104	6	5748	3834	8008	305	453	396	849	43291	165	98364	25	1	154	16520	73	398	917	18	6	22752	15469	50973	1274	1905	1810	3715

## SCHEDULE OF TEACHERS' SALARIES, 1885.

## HIGH SCHOOLS.

	PER MONTH.
Principals of High Schools.....	\$250 00
Special Teacher of Latin and Greek, Boys' High.....	160 00
Special Teacher of Natural Sciences, Boys' High.....	160 00
Special Teacher of Mathematics, Boys' High.....	160 00
Assistants in Boys' High School.....	150 00
Vice-Principal, Girls' High (in Powell Street Branch School).....	150 00
Special Teacher of Natural Sciences, Girls' High.....	160 00
Special Teacher of Latin, Girls' High.....	160 00
Special Teachers of Normal Class, Girls' High.....	150 00
Assistants (Senior Classes), Girls' High.....	150 00
Assistants (Middle Classes), Girls' High.....	150 00
Assistants (Junior Classes), Girls' High.....	150 00

## GRAMMAR SCHOOLS.

	PER MONTH.
Principals having eighteen classes or more.....	\$190 00
Principals having twelve classes and less than eighteen.....	165 00
Vice-Principals.....	115 00
Assistants, first grade classes.....	75 00
Assistants, second grade classes.....	75 00
Assistants third grade classes.....	70 00
Assistants, fourth grade classes.....	70 00

## PRIMARY SCHOOLS.

	PER MONTH.
Principals having eight classes or more.....	\$125 00
Principals having five classes and less than eight.....	102 50
Principals having four classes or less.....	90 00
Assistants, 1st year.....	50 00
Assistants, 2d year.....	52 50
Assistants, 3d year.....	55 00
Assistants, 4th year.....	57 50
Assistants, 5th year.....	60 00

NOTE.—This schedule for the salaries of Primary assistants shall apply to those teachers only whose salaries will thereby be increased, and to teachers hereafter to be elected; but it shall not apply so as to occasion the reduction of the salaries of any Primary assistants heretofore elected.

RULE OF INCREASE OF SALARIES ON ACCOUNT OF EXPERIENCE, APPLYING TO ALL TEACHERS IN THE HIGH, GRAMMAR AND PRIMARY SCHOOLS.

	PER MONTH.
Increase at the end of two years.....	\$2 50
Increase at the end of five years.....	5 00
Increase at the end of seven years.....	7 50
Increase at the end of ten years.....	10 00

This rule shall apply to all teachers who have had their experience in public schools in the United States.



## REPORT OF THE SUPERINTENDENT

## SPECIAL SCHOOLS.

	PER MONTH.
Principal of Evening Schools.....	\$100 00
Assistants in Evening Schools.....	50 00
Teachers in Experimental Schools.....	75 00

## SPECIAL TEACHERS.

	PER MONTH.
Assistants in Grammar and Primary Schools teaching English and German, or English and French, extra.....	\$5 00

## STATEMENT

SHOWING THE NUMBER OF TEACHERS RECEIVING THE VARIOUS SALARIES IN  
THE FOREGOING SCHEDULE.

	PER MONTH.
2 teachers, at.....	\$260 00
5 teachers, at.....	200 00
11 teachers, at.....	175 00
5 teachers, at.....	170 00
2 teachers, at.....	167 50
21 teachers, at.....	160 00
1 teacher, at.....	157 50

# OF COMMON SCHOOLS.

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## STATEMENT SHOWING THE NUMBER OF TEACHERS, ETC.—CONCLUDED.

	PER MONTH.
4 teachers, at.....	150 00
19 teachers, at.....	135 00
1 teacher, at.....	132 50
2 teachers, at.....	130 00
19 teachers, at.....	125 00
1 teacher, at.....	122 50
1 teacher, at.....	112 50
9 teachers, at.....	100 00
2 teachers, at.....	97 50
1 teacher, at.....	95 00
1 teacher, at.....	90 00
45 teachers, at.....	85 00
6 teachers, at.....	82 50
72 teachers, at.....	80 00
27 teachers, at.....	77 50
16 teachers, at.....	75 00
13 teachers, at.....	72 50
119 teachers, at.....	70 00
86 teachers, at.....	67 50
29 teachers, at.....	65 00
43 teachers, at.....	62 50
29 teachers, at.....	60 00
28 teachers, at.....	57 50
3 teachers, at.....	55 00
37 teachers, at.....	52 50
46 teachers, at.....	50 00
1 teacher, at.....	25 00
1 teacher, at.....	20 00
26 substitutes, paid by the day.....	
Average monthly salary.....	\$79 69
Average monthly salary paid male teachers.....	128 85
Average monthly salary paid female teachers.....	72 55

## COMPENSATION OF SUBSTITUTE TEACHERS.

ADOPTED MARCH 19, 1878.

1. The Board of Education appoints twenty-six Substitute Teachers. They are employed by the Superintendent to take charge of the classes of teachers who are temporarily absent, to fill vacancies and to take charge of new classes until regular teachers are appointed by the Board.

2. The rates of payment per day are as follows:

When filling the position of Assistant in High Schools.....	\$6 00
When filling the position of Assistant in Grammar Grades.....	4 00
When filling the position of Assistant in Primary Grades.....	3 00
When filling the position of Assistant in Evening Schools.....	2 00

3. All substitutes required to report for duty at the office of the Superintendent are paid \$1 00 per day when their services are not needed in any school.

4. A Vice-Principal or an Assistant Teacher, when filling the position of Principal, receives the salary that would be paid to the Principal for the same time.

5. All other cases are determined by the Superintendent in conjunction with the Committee on Salaries.

## EXPENDITURES.

Teachers' salaries.....		\$646,401 25.
Decrease for the year.....	\$11,423 18	
Janitors' salaries.....		40,737 90
Decrease for the year.....	577 70	
Census Marshals.....		2,482 50
Increase for the year.....	280 50	
Books.....		847 86
Decrease for the year.....	692 39	
Stationery.....		5,074 62
Increase for the year.....	1,572 04	
Printing.....		3,271 35
Increase for the year.....	706 79	
Advertising.....		728 85
Decrease for the year.....	226 70	
Furniture.....		11,818 80
Decrease for the year.....	552 01	
Fuel.....		5,598 00
Decrease for the year.....	976 08	
Lights.....		1,516 29
Increase for the year.....	30 39	
Rents.....		6,245 88
Increase for the year.....	1,462 33	
Repairs.....		16,830 00
Decrease for the year.....	9,342 59	
Permanent improvements.....		7,576 78
Decrease for the year.....	507 14	
Erection of buildings.....		42,017 66
Increase for the year.....	29,103 91	
Office salaries.....		6,575 90

# OF COMMON SCHOOLS.

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Increase for the year.....	\$32 04	
Telegraph service.....		\$1,846 16
Increase for the year.....	145 55	
Supplies.....		5,029 34
Increase for the year.....	931 25	
Legal expenses.....		447 50
Increase for the year.....	427 50	
Postage.....		101 55
Architect's fees.....		2,127 45
Insurance.....		210 00
School apparatus.....		1,058 75
Board of Examiners.....		1,350 00
Incidentals.....		1,686 30
Carpenter shop salaries.....		5,687 50
Total expenses for the year.....		817,168 14
Increase for the year.....	19,715 91	
Cost of instruction per pupil, based on the enrollment, and excluding expenditures for buildings.....		17 91
Cost of instruction per pupil, based on the average number belonging, and excluding expenditures for buildings.....		22 90
Cost of instruction per pupil, based on the average daily attendance, and including expenditures for buildings.....		25 59
Amount per pupil allowed by law, based on the average daily attendance.....		35 00

## DETAILED STATEMENT OF THE FINANCES OF THE DEPARTMENT FOR THE FISCAL YEAR ENDING JUNE 30, 1885.

### RECEIPTS.

From taxes.....	\$344,503 32
From State apportionment.....	489,368 03
From rents.....	5,381 75
From canceled demands.....	1,614 70
From sale of old school house and old material.....	207 75
Total.....	\$841,075 55

### EXPENDITURES.

For teachers' salaries.....	\$646,401 25
For janitors' salaries.....	40,737 90
For Census Marshals.....	2,482 50
For books.....	847 86
For stationery.....	5,074 62
For printing.....	3,271 35
For advertising.....	728 85
For furniture.....	11,818 80
For fuel.....	5,598 00
For lights.....	1,516 29
For rents.....	6,245 80
For repairs.....	16,930 06
For permanent improvements.....	7,576 78
For erection of buildings.....	42,017 66
For office salaries.....	8,575 90
For telegraph service.....	1,846 13

## REPORT OF THE SUPERINTENDENT

For supplies.....		\$5,029 34
For legal expenses.....		447 50
For postage.....		101 55
For architect's fees.....		2,127 45
For insurance.....		210 00
For school apparatus.....		1,058 75
For Board of Examiners.....		1,350 00
For incidentals.....		1,686 30
For carpenter shop salaries.....		5,587 50
Total.....		\$817,168 14
Total revenue.....		\$841,075 55
Balance overdrawn July 1, 1884.....	\$23,198 77	
Total expenditures.....	817,168 14—	840,866 91
Balance on hand July 1, 1885.....		\$708 64

## COMPARATIVE EXPENSES OF THE PUBLIC SCHOOLS AND THE TOTAL EXPENSES OF THE CITY.

YEARS.	Total Expense of the City.	Total Expense of the School Department.	Per cent of Expendi- tures for School Purposes.
1852.....		\$23,125 00	
1853.....		35,040 00—	
1854.....		159,249 00	
1855.....		136,580 00	
1856.....		125,064 00	
1857.....		92,955 00	
1858.....		104,808 00	
1859.....		134,731 00	
1860.....	\$1,142,290 89	156,407 00	13
1861.....	826,012 83	158,855 00	19
1862.....	812,569 25	134,567 00	16
1863.....	1,387,806 12	178,929 00	13
1864.....	1,495,906 32	228,411 00	16
1865.....	1,819,078 52	346,862 00	19
1866.....	2,192,918 79	361,668 00	17
1867.....	2,163,356 02	507,822 00	23.4
1868.....	2,117,786 97	415,839 00	19.6
1869.....	2,294,810 05	400,842 00	17.4
1870.....	2,460,633 27	526,625 90	21.4
1871.....	2,543,717 15	705,116 00	27.7
1872.....	2,726,266 39	668,262 00	24.5
1873.....	3,155,015 99	611,818 00	19.4
1874.....	3,197,508 30	689,022 00	21.5
1875.....	4,106,457 65	707,445 36	17.2
1876.....	3,992,187 16	867,754 89	21.7
1877.....	3,500,100 00	732,324 17	20.9
1878.....	4,064,067 03	989,258 99	21.2
1879.....	5,476,292 86	876,489 14	16
1880.....	5,844,245 98	839,132 72	13.3
1881.....	4,796,570 02	827,323 71	17.2
1882.....	4,197,925 61	735,474 61	17.2
1883.....	3,850,488 24	791,174 99	20
1884.....	3,820,126 01	794,452 23	20.8
1885.....		817,168 14	
Total.....		\$15,853,596 85	

## SCHOOL FUND, 1885-86.

On February 19, 1886, the Board of Education, as required by law, adopted the following estimate of the amount needed to meet the expenses of the Department during the fiscal year 1885-86, and transmitted it to the Board of Supervisors:

For teachers' salaries.....	\$701,430 00
For janitors' salaries.....	44,900 00
For Census Marshals.....	2,100 00
For books.....	2,000 00
For stationery.....	7,000 00
For printing..	2,500 00
For advertising.....	800 00
For furniture.....	10,000 00
For fuel.....	7,000 00
For lights.....	2,500 00
For rents.....	5,364 00
For repairs.....	20,000 00
For permanent improvements.....	10,000 00
For office salaries.....	4,800 00
Carpenter shop salaries.....	7,200 00
For school houses and sites.....	60,000 00
For telegraph service.....	1,750 00
For supplies.....	7,000 00
For legal expenses.....	500 00
For incidentals.....	2,500 00
For Board of Examiners.....	1,200 00
For school apparatus.....	2,000 00
For insurance.....	216 00
For water.....	156 00
Total.....	\$902,916 00

This estimate was reduced by the Board of Supervisors to \$772,000. The revenue of the Department for the fiscal year 1885-86 is estimated to be as follows:

From city taxes.....	\$267,000 00
From State apportionment.....	500,478 00
From rents.....	4,524 00
Total.....	\$772,000 00

## NAMES AND LOCATIONS OF SCHOOLS.

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- BERNAL HEIGHTS PRIMARY SCHOOL**, Cortland avenue, between Laurel avenue and Moultrie street. Philip Prior, Principal.
- BOYS' HIGH SCHOOL**, Sutter street, between Gough and Octavia streets.  
F. A. Blackburn, Principal.
- BROADWAY GRAMMAR SCHOOL**, Broadway street, between Powell and Mason streets.  
Miss Jean Parker, Principal.
- BUENA VISTA PRIMARY SCHOOL**, York street, between Solano and Butte streets.  
Miss A. B. Chalmers, Principal.
- CLEMENT GRAMMAR SCHOOL**, Geary street, between Jones and Leavenworth streets.  
Chas. F. True, Principal.
- CLEVELAND SCHOOL**, Harrison street, between Tenth and Eleventh streets.  
Miss A. E. Slavan, Principal.
- COLUMBIA GRAMMAR SCHOOL**, Columbia street, between Twenty-fifth and Twenty-sixth streets. Mrs. C. F. Plunkett, Principal.
- COMMERCIAL SCHOOL**, Powell street, near Clay street.  
Isidor Leszynsky, Principal.
- DENMAN GRAMMAR SCHOOL**, N. W. corner Bush and Taylor streets.  
James Denman, Principal.
- EIGHTH STREET PRIMARY SCHOOL**, Eighth street, near Harrison street, rear of Franklin Grammar School. H. C. Kinne, Principal.
- EMERSON PRIMARY SCHOOL**, Pine street, between Scott and Divisadero streets.  
Miss S. A. Rightmire, Principal.
- EVENING SCHOOL—LINCOLN GRAMMAR SCHOOL BUILDING.**  
Mr. A. H. MacDonald, Principal.
- EVENING SCHOOL—SOUTH COSMOPOLITAN PRIMARY SCHOOL BUILDING.**
- EVENING SCHOOL—WASHINGTON GRAMMAR SCHOOL BUILDING.**
- EVENING SCHOOL—HAIGHT PRIMARY SCHOOL BUILDING.**
- FAIRMOUNT PRIMARY SCHOOL**, Chenery street, near Randall street.  
Miss H. M. Fairchild, Principal.
- FIVE MILE HOUSE SCHOOL**, near Five Mile House.  
Miss Kate Conklin, Principal.
- FRANKLIN GRAMMAR SCHOOL**, Eighth street, near Harrison street.  
Elisha Brooks, Principal.
- GARFIELD PRIMARY SCHOOL**, Union street, between Kearny and Montgomery streets.  
Mrs. A. E. DuBols, Principal.
- GIRLS' HIGH SCHOOL**, Bush street, near Hyde street.  
John Swett, Principal.
- GRANT PRIMARY SCHOOL**, Golden Gate avenue, near Hyde street.  
Miss A. M. Stinson, Principal.
- GREENWICH STREET PRIMARY SCHOOL**, Greenwich street, between Jones and Leavenworth streets. Mrs. A. S. Trask, Principal.
- GOLDEN GATE PRIMARY SCHOOL**, Golden Gate avenue, between Pierce and Scott streets.  
Miss E. Cushing, Principal.
- HAIGHT PRIMARY SCHOOL**, Mission street, between Twenty-fifth and Twenty-sixth streets.  
Miss M. A. Haswell, Principal.
- HAMILTON GRAMMAR SCHOOL**, Geary street, between Pierce and Scott streets.  
W. A. Robertson, Principal.
- HAYES VALLEY GRAMMAR SCHOOL**, McAllister street, between Franklin and Gough streets.  
George Brown, Principal.

- HAYES VALLEY PRIMARY SCHOOL, Grove street, near Larkin street.  
Miss P. M. Stowell, Principal.
- IRVING PRIMARY SCHOOL, Broadway street, between Montgomery and Sansome streets.  
Miss Carrie B. Barlow, Principal.
- JACKSON STREET EXPERIMENTAL SCHOOL, No. 116 Jackson street.  
Miss Flora Van Den Bergh, Principal.
- LAGUNA HONDA SCHOOL, Eighth avenue, near R street.  
James Dwyer, Principal.
- LINCOLN GRAMMAR SCHOOL, Fifth street, near Market street,  
James K. Wilson, Principal.
- LINCOLN PRIMARY SCHOOL, Fifth street, near Market street, rear Lincoln Grammar School.  
Miss A. M. Manning, Principal.
- LOBOS AVENUE SCHOOL, Point Lobos avenue, near Parker avenue.  
Miss E. Goldsmith, Principal.
- LOMBARD STREET PRIMARY SCHOOL, Lombard street, between Baker and Broderick streets.  
Miss E. S. Code, Principal.
- LONGFELLOW PRIMARY SCHOOL, Silver street, between Second and Third streets.  
Miss Jennie Smith, Principal.
- MISSION GRAMMAR SCHOOL, Mission street, between Fifteenth and Sixteenth streets.  
Mrs. N. R. Craven, Principal.
- MISSION PRIMARY SCHOOL, Mission street, between Fifteenth and Sixteenth streets, rear of  
Mission Grammar School. Mrs. M. H. Walker, Principal.
- MOULDER PRIMARY SCHOOL, corner Page and Gough streets.  
Miss Ella L. Ciprico, Principal.
- NOE AND TEMPLE STREET PRIMARY SCHOOL, corner Noe and Temple streets.  
R. P. Davidson, Principal.
- NORTH COSMOPOLITAN GRAMMAR SCHOOL, Filbert street, between Taylor and Jones  
streets. Miss Kate Kennedy, Principal.
- OCEAN HOUSE SCHOOL, San Miguel Road, near Ocean House Road.  
D. J. Delay, Principal.
- PACIFIC HEIGHTS GRAMMAR SCHOOL, Jackson street, between Webster and Fillmore  
streets. Miss Hannah Cooke, Principal.
- POINT LOBOS SCHOOL, Nineteenth avenue, near Point Lobos avenue.  
Miss A. G. Ostlin, Principal.
- POTRERO PRIMARY SCHOOL, Minnesota street, between Napa and Sierra streets.  
W. H. Edwards, Principal.
- POWELL STREET PRIMARY SCHOOL, Powell street, between Washington and Jackson  
streets. Miss Margery C. Robertson, Principal.
- REDDING PRIMARY SCHOOL, Pine street, between Larkin and Polk streets.  
Miss M. Deane, Principal.
- RINCON GRAMMAR SCHOOL, Silver street, between Second and Third streets.  
Miss E. A. Cleveland, Principal.
- SANCHEZ STREET PRIMARY SCHOOL, Sanchez street, between Sixteenth and Seventeenth  
streets. Mrs. F. A. Banning, Principal.
- SHOTWELL STREET PRIMARY SCHOOL, Shotwell street, between Twenty-second and  
Twenty-third streets. Miss A. A. Hill, Principal.
- SOUTH COSMOPOLITAN GRAMMAR SCHOOL, Eddy street, between Polk and Van Ness  
avenue. A. Herbst, Principal.
- SOUTH COSMOPOLITAN PRIMARY SCHOOL, Bush street, near Stockton street.  
Miss M. A. Castelhun, Principal.
- SOUTH END SCHOOL, Williams street, near Henry street.  
Miss M. A. Scherer, Principal.



- SOUTH SAN FRANCISCO SCHOOL**, corner Fourteenth avenue and L street.  
W. J. Gorman, Principal.
- SPRING VALLEY GRAMMAR SCHOOL**, Broadway street, near Polk street.  
J. W. Anderson, Principal.
- SPRING VALLEY PRIMARY SCHOOL**, Union street, near Franklin street.  
Miss J. M. A. Hurley, Principal.
- STARR KING PRIMARY SCHOOL**, Bryant street, between Sixth and Seventh.  
Miss M. McKenzie, Principal.
- TEHAMA PRIMARY SCHOOL**, Tehama street, between First and Second streets.  
Miss E. A. Wood, Principal.
- TURK STREET PRIMARY SCHOOL**, Turk street, between Buchanan and Webster streets.  
Mrs. G. Washburn, Principal.
- UNION PRIMARY SCHOOL**, corner Filbert and Kearny streets.  
Mrs. A. Griffith, Principal.
- UNION STREET EXPERIMENTAL SCHOOL**, No. 512 Union street.  
Miss A. M. Stovall, Principal.
- VALENCIA GRAMMAR SCHOOL**, Valencia street, between Twenty-second and Twenty-third streets. Silas A. White, Principal.
- WASHINGTON GRAMMAR SCHOOL**, southwest corner Washington and Mason streets.  
Selden Sturges, Principal.
- WEST END SCHOOL**, San Jose Road, near Six Mile House.  
Miss Clara Johnston, Principal.
- WEST MISSION PRIMARY SCHOOL**, West Mission street, between Hermann and Ridley streets.  
Mrs. L. F. Cadwell, Principal.
- WHITTIER PRIMARY SCHOOL**, Harrison street, near Fourth street.  
Miss E. E. Stincen, Principal.

### SCHOOL HOUSES.

Number of buildings used for High Schools.....	3
Rooms, 37; Hall, 1.	
Number of buildings used for Grammar Schools.....	15
Rooms, 225; Hall, 1.	
Number of buildings used for Primary Schools.....	44
Rooms, 363; Hall, 1.	
Total number of buildings used by the Department.....	62
Rooms, 625; Halls, 3.	
Number of brick school buildings owned by the Department.....	4
Number of wooden school buildings owned by the Department.....	52
Total number of school buildings owned by the Department.....	58
Number of rooms rented (May, 1885).....	
Number of lots rented (May, 1885).....	1
Number of pupils taught in rented rooms.....	
Amount paid for rent during the year.....	\$6,245 83

## LIST OF TEACHERS, SCHOOLS AND RESIDENCES.

TO DECEMBER 10, 1885.

NAMES.	SCHOOLS.	RESIDENCES.	CERTIFI- CATES.
Adams, Miss Clara A.	Broadway Grammar.	1910 Hyde.	Life.
Adams, Miss Georgie.	Substitute Class.	1424 McAllister.	State Ed.
Adams, Miss Lucy F.	Turk St. Primary.	1910 Hyde.	2d.
Abern, Miss M. A.	Franklin Grammar.	1305 Howard.	Life.
Aiken, Miss Addie E.	Broadway Grammar.	903 Sutter.	Life.
Aldrich, Miss Jennie F.	Substitute Class.	1026 Jackson.	1st.
Alexander, Miss Rebecca.	West Mission Primary.	625 Geary.	Life.
Anderson, Mr. James W.	Spring Valley Grammar.	3044 Sixteenth.	Life.
Anderson, Mrs. Anna B.	Hayes Valley Primary.	3044 Sixteenth.	Life.
Anderson, Miss Nettie H.	Emerson Primary.	2030 Bush.	2d.
Anderson, Miss Marian S.	Emerson Primary.	2030 Bush.	2d.
Armbruster, Miss Helen M.	Columbia Grammar.	11 Hickory avenue.	State Ed.
Armstrong, Miss Nellie.	Hayes Valley Grammar.	812 Grove.	2d.
Ashmead, Miss E. R.	Noe and Temple St. Primary.	Bryant avenue, near Mari- posa.	Life.
Atwood, Mrs. C. L.	Girls' High.	2015 Devisadero.	Life.
Bagnall, Mr. John.	Hamilton Grammar.	20 Elliott Park.	Life.
Baker, Mrs. S. C.	Point Lobos Primary.	Point Lobos Road, nr. 4th avenue.	Life.
Baker, Mrs. Fannie E.	Mission Grammar.	127 1/2 Guerrero.	Life.
Baldwin, Miss Nellie S.	Hamilton Grammar.	2519 Sacramento.	Life.
Banks, Miss Jessie F.	Franklin Grammar.	1510 Broadway.	Life.
Banning, Mrs. Frances A.	Sachez St. Primary.	624 Castro.	Life.
Bannan, Miss Barbara C.	Emerson Primary.	2012 Pierce.	2d.
Bannan, Miss Maggie.	South Cosmopolitan Primary.	2012 Pierce.	1st.
Barber, Miss Emma J.	Irving Primary.	1222 Pacific.	2d.
Barry, Miss M. C.	Hayes Valley Grammar.	211 Taylor.	2d.
Barrows, Miss Annie W.	South San Francisco.	109 Silver.	1st.
Barrow, Miss Laura M.	Turk St. Primary.	2626 Sutter.	Life.
Barlow, Miss Carrie B.	Irving Primary.	1312 Jones.	Life.
Bartlett, Miss Eliza F.	Substitute Class.	2013 Howard.	State Ed.
Baumgardner, Mrs. E. M.	Denman Grammar.	513 Taylor.	Life.
Beales, Mrs. C. R.	Girls' High.	1314 Jones.	Life.
Beardley, Miss Emma F.	Broadway Grammar.	631 Geary.	1st.
Belding, Mrs. Mary L.	Mission Primary.	444 Twenty-second.	2d.
Bendit, Miss Pauline.	West Mission Primary.	17 Hyde.	2d.
Benson, Miss A. E.	Noe and Temple St. Primary.	2710 Howard.	Life.
Bibb, Mrs. A. H.	Hayes Valley Grammar.	2504 Washington.	1st.
Bigelow, Mrs. Susan H.	Clement Grammar.	1608 Polk.	1st.
Bigelow, Mrs. Clara J.	South Cosmopolitan Gram.	2408 Folsom.	State Ed.
Bigley, Miss Jennie.	Longfellow Primary.	Cor. Fillmore and Grove.	2d.
Blackburn, Mr. F. A.	Boys' High.	711 Jones.	Life.
Blackstaff, Miss Maggie D.	Spring Valley Grammar.	2213 Polk.	State Ed.
Bliven, Miss Fannie M.	Starr King Primary.	2008 Mission.	1st.
Bloch, Miss Bertha B.	Union Primary.	615 Green.	State Ed.
Board, Mrs. Jessie.	Valencia Grammar.	1532 Polk.	State Ed.
Bodwell, Miss E.	Haight Primary.	331 Bartlett.	State Ed.
Bodkin, Miss M. G.	Lincoln Evening.	400 Octavia.	2d.
Boland, Miss Johanna M.	Spring Valley Grammar.	431 Tenth.	State Ed.
Bonnell, Miss K.	Redding Primary.	1527 Clay.	2d.
Bonnard, Miss M.	Spring Valley Grammar.	1614 1/2 Bush.	Life.
Bonelli, Mrs. E. S.	Golden Gate Primary.	104 Taylor.	State Ed.
Booth, Miss Ella N.	Valencia Grammar.	512 Shotwell.	Life.
Bowman, Mr. Levi.	Lincoln Grammar.	817 Bush.	State Ed.
Boyle, Miss Mary.	North Cosmopolitan Gram.	2523 Folsom.	Life.
Boyle, Miss Sarah J.	Hayes Valley Primary.	512 Mason.	Life.
Bragg, Miss M. J.	Girls' High.	Castro and Beaver.	State Ed.
Bragg, Miss Adah.	Noe and Temple St. Primary.	Castro and Beaver.	1st.
Bragg, Miss Lizzie.	Noe and Temple St. Primary.	Castro and Beaver.	2d.
Brady, Miss Kate Eliz.	Longfellow Primary.	353 Grove.	1st.
Bray, Miss L. T.	Irving Primary.	543 Turk.	Life.
Bradbury, Miss Vesta.	Broadway Grammar.	2015 Devisadero.	Life.
Bride, Laura E.	Substitute Class.	1348 Folsom.	1st.
Bristol, Miss Maud K.	Moulder Primary.	919 O'Farrell.	1st.

## LIST OF TEACHERS, SCHOOLS AND RESIDENCES—CONTINUED.

NAMES.	SCHOOLS.	RESIDENCES.	CERTIFI- CATES.
Brogan, Mrs. K. E.	Franklin Grammar.	301 Franklin.	1st.
Brown, Mr. B. L.	Washington Grammar.	225 Geary.	State Ed.
Brown, Mr. George.	Hayes Valley Grammar.	1220 Twenty-first.	Life.
Brown, Miss Isabella R.	Haight Primary.	31 Cook.	Life.
Brooks, Mr. Elisha.	Franklin Grammar.	1725 Sutter.	Life.
Bunker, Miss Carrie R.	Hamilton Grammar.	1437 Steiner.	State Ed.
Bunker, Miss Bessie.	South Cosmopolitan Primary.	961 Third, East Oakland.	Life.
Burke, Mrs. L. K.	South Cosmopolitan Gram.	1213 Clay.	Life.
Burnham, Miss Cordelia.	Noe and Temple Street.	312 Hyde.	Life.
Burnham, Miss Lulu.	Lincoln Primary.	10 Bond.	Life.
Bush, Miss Lizzie R.	Starr King Primary.	1716 Hyde.	1st.
Butler, Miss Lizzie.	Valencia Grammar.	117 Webster.	2d.
Barry, Miss May.	Clement Grammar.	2523 Sacramento.	1st.
Brown, Miss Emma.	Eighth St. Primary.	6 Pleasant.	2d.
Boukofskey, Miss Rebecca.	Hayes Valley Primary.	402 Octavia.	2d.
Bronson, Mrs. Fannie P.	Franklin Grammar.	114 Eighth.	2d.
Brunson, Miss Jennie.	Garfield Primary.	1315 Mason.	2d.
Cadwell, Mrs. Louisa T.	West Mission Primary.	1527 Sutter.	1st.
Cahalin, Miss Gertrude H.	Mission Grammar.	616 Jones.	1st.
Calhoun, Miss Jessie J.	Powell St. Primary.	1301 Laguna.	2d.
Caldwell, Mrs. M. E.	Bernal Heights.	18 Mission ave.	Life.
Callahan, Miss Mary E.	Clement Grammar.	712 Golden Gate avenue.	Life.
Camblein, Mrs. Mary F.	Turk Street Primary.	315 Jones.	Life.
Campbell, Miss A. T.	North Cosmopolitan Gram.	1220 Jackson.	State Ed.
Campbell, Miss Annie B.	Washington Grammar.	1220 Jackson.	1st.
Campbell, Miss Ruth G.	Broadway Grammar.	1220 Jackson.	Life.
Campbell, Miss C. E.	Starr King Primary.	Hubbard House, 4th St.	Life.
Canham, Miss Mary J.	Spring Valley Grammar.	1712 Pacific.	Life.
Carr, Miss Hattie.	Substitute Class.	112½ Fell.	2d.
Carter, Miss Susie E.	Lincoln Primary.	200 Turk.	2d.
Carter, Mrs. Rebecca T.	South Cosmopolitan Primary.	44 Sixth.	Life.
Carlisle, Mrs. Ellen M.	Shotwell St. Primary.	1904 Divisadero.	Life.
Carey, Miss Agnes.	Fairmount.	Jersey, between 24th and 25th.	2d.
Carson, Miss Lizzie.	Five Mile House.	38 McAllister.	1st.
Carson, Miss M. E.	Spring Valley Primary.	1518 Broadway.	Life.
Casey, Miss Kate F.	Potrero Primary.	328 Brannan.	State Ed.
Casey, Miss Minnie C.	Washington Grammar.	737 Vallejo.	2d.
Casey, Miss M. E.	Valencia Grammar.	17 Twenty-second.	1st.
Casey, Miss May.	Mission Primary.	1821 Jessie.	2d.
Castleburn, Miss M. A.	South Cosmopolitan Primary.	23 Ridley.	Life.
Catlin, Miss A. G.	Point Lobos.	Abbotsford House.	Life.
Chase, Miss Ella.	Longfellow Primary.	331 O'Farrell.	Life.
Chalmers, Miss Annie B.	Buena Vista Primary.	711 Jones.	Life.
Chalmers, Mrs. C.	Lincoln Grammar.	527 Twenty-second.	Life.
Chappelle, Miss Emily S.	Redding Primary.	228 Eleventh.	1st.
Cherry, Miss Addie.	Redding Primary.	2507 Sacramento.	2d.
Childs, Miss K. B.	Denman Grammar.	1016 Bush.	Life.
Church, Miss Emma F.	West Mission Primary.	2727 California.	1st.
Ciprico, Miss Ella L.	Moulder.	2312 Mission.	State Ed.
Clark, Mrs. Dorcas.	Girls' High.	1502 Franklin.	Life.
Clarke, Miss Lotta K.	Mission Grammar.	737 Howard.	1st.
Clarence, Mr. Henry.	South Cosmopolitan Gram.	326 Tenth.	State Ed.
Classen, Miss Lou M.	Franklin Grammar.	232 Francisco.	State Ed.
Claiborne, Miss Bessie G.	Turk St. Primary.	2420 Buchanan.	2d.
Clayton, Miss Ida M.	Redding Primary.	2327 California.	2d.
Cleveland, Miss E. A.	Rincon Grammar.	228 Capp.	Life.
Cline, Mrs. M. J.	Franklin Grammar.	2606 Sacramento.	2d.
Cline, Miss Annie.	Garfield Primary.	1414 Washington.	1st.
Clarke, Mrs. K. F.	Lincoln Evening.	969 Mission.	Life.
Code, Mrs. E. S.	Lombard St. Primary.	606½ Shotwell.	Life.
Coghlan, Miss Katie.	Substitute Class.	562 Stevenson.	2d.
Collins, Miss Bertha L.	Tehama Primary.	1412 Mason.	1st.
Collins, Miss Mary E.	Mission Grammar.	424 Minna.	Life.

## OF COMMON SCHOOLS.

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## LIST OF TEACHERS, SCHOOLS AND RESIDENCES—CONTINUED.

NAMES.	SCHOOLS.	RESIDENCES.	CERTIFI- CATES.
Coleman, Miss Fannie E.	Grant Primary	443 Bryant	State Ed.
Coles, Miss Ida E.	Noe and Temple St. Primary	1232 Twenty-first	State Ed.
Cole, Miss Lena C.	Garfield Primary	520 Grove	2d.
Cole, Miss M. A.	North Cosmopolitan Gram.	515 Leavenworth	State Ed.
Colby, Miss Alice E.	Mission Grammar	209 Thirteenth	2d.
Conklin, Miss Kate	Five Mile School	516 Duncan	State Ed.
Connell, Miss M. I.	Valencia Grammar	907 Shotwell	State Ed.
Connolly, Mrs. J. J.	Greenwich St. Primary	638 Green	Life.
Cooper, Mrs. Jennie D.	Columbia Grammar	303 Eddy	Life.
Cooney, Miss Ellen	Irving Primary	291 Union	1st.
Cooke, Miss Hannah	Pacific Heights	1235 Hyde	Life.
Cornell, Miss E. L.	Lincoln Grammar	134 McAllister	State Ed.
Corbell, Miss Sara L.	Clement Grammar	1512 Sacramento	2d.
Corbell, Miss Susie	West Mission Primary	1512 Sacramento	2d.
Corkery, Miss M.	Pacific Heights	1520 Broadway	Life.
Cove, Miss Emily A.	Whittier Primary	724 Sixteenth	2d.
Cox, Miss Mary M.	Girls' High	131 Page	High.
Crowley, Miss Florence A.	Washington Grammar	500 Eddy	1st.
Craven, Mrs. Nettie B.	Mission Grammar	1506 California	Life.
Crawford, Mrs. J.	Lincoln Grammar	206 Nineteenth	Life.
Crocker, Mrs. Mary J. C.	Sanchez St. Primary	1629 Sacramento	1st.
Crowley, Miss L. E.	Hamilton Grammar	1109 Columbia	State Ed.
Crowley, Miss Mary Elis	Longfellow Primary	1629 Sacramento	2d.
Crowley, Miss Kate H.	Lincoln Evening	1629 Sacramento	2d.
Crowley, Miss Edith H.	Lincoln Primary	530 Turk	2d.
Cullen, Miss L. R.	Lincoln Grammar	749 Harrison	1st.
Cullen, Miss Louise	Bernal Heights	733 Harrison	2d.
Cullen, Miss Jennie	Whittier Primary	28 Fell	High.
Cunning, Mr. David	Boys' High	24 Scott Place	State Ed.
Currier, Miss Maggie H.	Washington Grammar	2626 Folsom	1st.
Curtis, Miss Johanna F.	Lincoln Primary	5144 Fell	1st.
Curtis, Miss Corinna	Hayes Valley Primary	450 Bryant	1st.
Curry, Miss Maggie B.	Lincoln Primary	278 Minna	1st.
Curry, Miss Margaret E.	Longfellow Primary	1524 Golden Gate avenue	1st.
Cushing, Miss Ellen	Golden Gate Primary	616 Jones	2d.
Chase, Miss Lalla E.	Moulder	1777 Green	State Ed.
Daniels, Mrs. S. B.	Denman Grammar	2626 Sacramento	State Ed.
Danka, Miss Julia	Denman Grammar	717 O'Farrell	1st.
D'Ancona, Mr. A. A.	Washington Evening	1532 Polk	Life.
D'Arcy, Miss A. M.	Denman Grammar	1032 Mission	State Ed.
Davidson, Mr. R. P.	Noe and Temple St. Primary	2321 1/2 Mission	2d.
Davidson, Mrs. M.	Noe and Temple	9 Fulton	1st.
Davidson, Mr. W. W.	Lincoln Evening	1420 Hyde	1st.
Davis, Miss Fannie	Redding Primary	1223 Eddy	2d.
Davis, Mrs. Fannie V.	Cleveland Primary	1507 Taylor	State Ed.
Day, Miss Eulalia A.	Lincoln Primary	1919 California	Life.
Deane, Miss Mary A.	Redding Primary	Ocean House Road	1st.
Delay, Mr. Daniel J.	Ocean House	1900 Vallejo	2d.
Denman, Mr. James	Denman Grammar	705 Hyde	Life.
Derrick, Miss Alice L.	Washington Evening	711 Jones	State Ed.
Devine, Miss Lena	Denman Grammar	1321 Clay	Life.
Dixon, Miss Bessie	Franklin Grammar	1420 Taylor	1st.
Doherty, Miss Emma	Broadway Grammar	25 Grand avenue	1st.
Donnelly, Miss Sarah F.	Pacific Heights Grammar	28 Grand avenue	Life.
Donnelly, Miss Mary E.	Rincon Grammar	307 Hayes	State Ed.
Donnelly, Miss Louise	Rincon Grammar	112 Perry	2d.
Donovan, Miss Ellen	Franklin Grammar	3032 California	Life.
Dora, Miss Anna M.	Rincon Grammar	916 Pacific	2d.
Doran, Miss Julia A.	Longfellow Primary	2806 Bush	2d.
Doran, Miss Marie E.	Irving Primary	Corner Pine street and	
Dorsey, Mrs. Florence	Lincoln Grammar	Centra avenue	State Ed.
Doyle, Miss Lizzie E.	Lincoln Primary	538 McAllister	2d.
Drucker, Miss Lissa	Whittier Primary		

## LIST OF TEACHERS, SCHOOLS AND RESIDENCES—CONTINUED.

NAMES.	SCHOOLS.	RESIDENCES.	CERTIFI- CATES.
Du Bois, Miss Anna E.	Garfield Primary.	1416 Hyde.	Life.
Dudley, Miss Alice J.	Pacific Heights Grammar.	1881 Baker.	State Ed.
Duffy, Miss A.	Lincoln Evening.	1713 Hyde.	1st.
Duffy, Miss Sarah J.	Tehama.	813 Golden Gate avenue.	1st.
Dunn, Miss C. E.	Eighth Street Primary.	123 California avenue.	2d.
Dunn, Miss Lilla V.	Whittier Primary.	453 Bryant.	2d.
Dunn, Miss Lizzie.	Substitute Class.	1110 Taylor.	1st.
Duncan, Miss Clara L.	Moulder.	626 Polk.	1st.
Durand, Miss May.	Cleveland Primary.	2128 Bush.	Life.
Durkin, Miss Lulu.	South End.	1226 1/2 Folsom.	1st.
Dwyer, Miss A. M.	Valencia Grammar.	925 O'Farrell.	1st.
Dwyer, Mrs. Maggie.	Hayes Valley Primary.	1503 Golden Gate ave.	2d.
Dwyer, Mr. James.	Laguna Honda.	1503 Golden Gate ave.	Life.
Dwyer, Mr. J. J.	Lincoln Evening.	925 O'Farrell.	1st.
Dworzacek, Miss Bertha.	Pacific Heights Grammar.	1527 Clay.	1st.
Earle, Miss Susie H.	Clement Grammar.	2314 Mission.	Life.
Earle, Miss Clara B.	Grant Primary.	2829 Bush.	Life.
Edwards, Mr. Wm. H.	Potrero Primary.	Brunswick House, Sixth and Howard.	Life.
Egan, Miss J. R.	Whittier Primary.	120 Oak.	1st.
Elder, Miss Elva R.	Emerson Primary.	1928 Sutter.	Life.
Elliott, Miss K.	Girls' High.	1519 California.	Life.
Elliott, Miss Mary.	Pacific Heights.	136 Gough.	1st.
Ellis, Miss Belle.	Commercial.	1915 Baker.	2d.
Ellis, Miss Minora S.	S. San Francisco Primary.	27 South Park.	1st.
Emmons, Miss Idella C.	Columbia Grammar.	937 Twenty-first.	2d.
English, Miss R. F.	Lincoln Grammar.	900 Shotwell.	State Ed.
Ephraim, Miss Jeannette.	Tehama Primary.	315 Golden Gate ave.	State Ed.
Ephraim, Miss Adeline.	Potrero Primary.	315 Golden Gate ave.	2d.
Evans, Miss Josephine C.	Greenwich St. Primary.	427 Sutter.	Life.
Evans, Miss Lillian M.	Union Primary.	408 Greenwich.	2d.
Ewing, Miss Nellie.	Hayes Valley Primary.	2221 Scott, cor. Washing'tn	2d.
Fagan, Miss Mary J.	Hayes Valley Primary.	110 Jones.	State Ed.
Fairchild, Miss Maria.	South Cosmopolitan Gram.	307 Polk.	State Ed.
Fairchild, Miss Carrie S.	Hayes Valley Grammar.	307 Polk.	1st.
Fairchild, Miss H. M.	Fairmount Primary.	916 Van Ness avenue.	Life.
Fairweather, Miss Helen.	Golden Gate Primary.	409 Steiner.	2d.
Fay, Miss Mary A.	Hayes Valley Primary.	212 Francisco.	Life.
Fay, Miss Rose.	Greenwich St. Primary.	212 Francisco.	2d.
Featherly, Miss Fannie.	Powell St. Primary.	1107 Mason.	2d.
Featherly, Miss Henrietta.	Powell Street Primary.	1107 Mason.	Life.
Fenton, Mrs. B.	Redding Primary.	3624 Sacramento.	Life.
Fischer, Miss Alice A.	Clement Grammar.	1619 Larkin.	1st.
Fischer, Miss Jennie.	Spring Valley Grammar.	1309 Jackson.	Life.
Fisher, Miss Julia.	West Mission Primary.	1309 Jackson.	1st.
Fitzsimmons, Miss K.	Garfield Primary.	222 Lombard.	Life.
Flaherty, Mrs. Belle.	South San Francisco.	31 Lily avenue.	2d.
Flcury, Miss Celine.	Longfellow Primary.	613 Larkin.	1st.
Flint, Miss A. T.	Denman Grammar.	812 Hyde.	State Ed.
Flynn, Miss Mary E.	Hayes Valley Primary.	29 Pleasant.	2d.
Folsom, Miss Sofia A.	Moulder Primary.	22 Bernard.	2d.
Forbes, Miss Jennie.	Lincoln Grammar.	320 Turk.	Life.
Forester, Miss Annie M.	South End.	614 Powell.	2d.
Fortier, Miss Rose.	Lincoln Primary.	1908 Brady.	2d.
Foster, Mrs. Emily.	South Cosmopolitan Gram.	333 McAllister.	Life.
Franklin, Miss Fannie.	Golden Gate.	212 Herman.	2d.
Frontin, Miss Mary J.	Whittier Primary.	1515 Jackson.	2d.
Frontin, Miss Eliz. A.	Whittier Primary.	1515 Jackson.	State Ed.
Gallagher, Miss M. J.	Denman Grammar.	2414 Fillmore.	Life.
Gallagher, Miss Annie M.	Mission Grammar.	115 Eleventh.	1st.
Gallagher, Miss Addie D.	Union Primary.	2414 Fillmore.	1st.
Gallagher, Miss Ellen.	Sanchez St. Primary.	333 Guerrero.	1st.
Gallagher, Miss Cora.	Buena Vista.	2017 Howard.	1st.
Gallagher, Miss G.	Buena Vista.	333 Guerrero.	State Ed.

## LIST OF TEACHERS, SCHOOLS AND RESIDENCES—CONTINUED.

NAMES.	SCHOOLS.	RESIDENCES.	CERTIFI- CATES.
Galloway, Miss M. S.	Greenwich St. Primary	2203 Devisadero	1st.
Gannon, Miss Minnie F.	Golden Gate Primary	1755 Ellis	State Ed.
Garland, Miss A. A.	South Cosmopolitan Primary	319 Ellis	Life.
Garness, Miss Emma F.	South San Francisco	50 South Park	1st.
Gavigan, Miss Annie E.	Grant Primary	216 Seventh	State Ed.
Gavigan, Mr. D. M.	Hamilton Evening	216 Seventh	2d.
Gerichten, Mrs. J. E.	South Cosmopolitan Gram.	219 Capp	1st.
Gilmore, Miss Forest A.	Moulder School	2833 Folsom	1st.
Glennon, Miss Isabel T.	Longfellow Primary	203 Taylor	Life.
Giddens, Miss Cora A.	Cleveland	413 Twenty-second	State E.I.
Goggin, Miss E. M.	Haight Primary	Fair Oak and 26th	2d.
Goldstein, Miss Amelia	South Cosmopolitan Gram.	2125 Bush	1st.
Goldsmith, Miss B.	Denman Grammar	629 Geary	1st.
Goldsmith, Miss Rose	Starr King Primary	629 Geary	Life.
Goldsmith, Miss Ada	Sanchez St. Primary	629 Geary	1st.
Goldsmith, Miss Esther	Lobos Avenue	629 Geary	Life.
Goldman, Miss Julia E.	Lobos Avenue	520 O'Farrell	1st.
Gorman, Mr. Wm. J.	Lincoln Evening	710 Nineteenth	Life.
Gorman, Miss Jane B.	Tehama Primary	44 Sixth	Life.
Gould, Miss Lucy L.	Substitute Class	708 Capp	1st.
Grott, Miss Maggie E.	Turk Street Primary	2230 Geary	2d.
Grauer, Miss Addie J.	Columbia Grammar	California ave, near 28th street.	State E.I.
Grant, Miss Helen A.	Tehama Primary	1035 Filbert St., Oakland.	Life.
Grant, Miss Ellen G.	South San Francisco	414 Larkin	Life.
Graham, Miss L. M.	Sanchez St. Primary	13 Glen Park avenue	1st.
Green, Mrs. A. H.	Fairmount Primary	225 Bartlett	Life.
Greene, Miss K. M.	South San Francisco	Fourteenth avenue, bet. P and 22d streets	1st.
Greer, Miss Jane E.	Valencia Grammar	609 Seventeenth	Life.
Greer, Miss Mary L.	Valencia Grammar	609 Seventeenth	Life.
Gregg, Miss Alice C.	Spring Valley Grammar	2110 Polk	Life.
Greenan, Mrs. Frank	Cleveland	1139 1/2 Folsom	1st.
Grimm, Miss Adele	Union Primary	18 Lewis	1st.
Griffith, Miss Aurelia	Union Primary	824 Lombard	Life.
Garness, Miss Maria E.	Turk St. Primary	50 South Park	2d.
Greene, Miss Floride	Grant Primary	2109 Pine	2d.
Hall, Mrs. Marian	Lincoln Evening	108 1/2 McAllister	2d.
Hagarty, Miss Annie M.	Columbia Grammar	133 Page	1st.
Hackett, Mrs. E. S.	Lincoln Primary	527 Geary	Life.
Ham, Mr. Chas. H.	Washington Grammar	560 Eighteenth	1st.
Hamill, Mrs. Amelia H.	Tehama Primary	1705 Broderick	Life.
Hamilton, Mr. James T.	Lincoln Grammar	201 Powell	Life.
Hamilton, Mrs. Carrie L.	Grant Primary	N. E. cor Howard and 20th	2d.
Hammond, Miss Ettie E.	Fairmount Primary	2732 Howard	2d.
Hammond, Miss Emily L.	Substitute Class	714 Geary	1st.
Halchette, Mrs. E. A.	North Cosmopolitan Gram'r	824 Lombard	State E.I.
Haulon, Miss Amelia I.	West Mission Primary	950 Folsom	1st.
Hendon, Miss Louise	Greenwich Street Primary	112 Powell	2d.
Harper, Miss Jeanette	Mission Grammar	306 Hyde	1st.
Harty, Miss Rosali	Grant Primary	11 1/2 Page	1st.
Hart, Miss Christine	Rincon Grammar	1516 California	Life.
Hart, Miss Pauline	Rincon Grammar	1516 California	Life.
Hart, Miss Lydia	Broadway Grammar	1516 California	1st.
Harrington, Miss A. S.	Spring Valley Grammar	2534 Washington	Life.
Harrigan, Miss Lizzie B.	Lincoln Evening	1612 Leavenworth	1st.
Harrigan, Miss Jose	Mission Primary	949 Harrison	1st.
Harrigan, Miss M. A.	Spring Valley Primary	129 Twelfth	1st.
Hawley, Mr. E. W.	Haight Evening	2840 Mission	2d.
Hartmeyer, Mrs. Lottie A.	Lincoln Primary	621 Bush	Life.
Hare, Miss F.	Columbia Grammar	505 Harrison	Life.
Hare, Mrs. K. M.	Lincoln Evening	110 1/2 McAllister	1st.
Haswell, Miss Nellie C.	Broadway Grammar	526 Greenwich	State Ed.
Haswell, Miss M. A.	Haight Primary	526 Greenwich	Life.

## LIST OF TEACHERS, SCHOOLS AND RESIDENCES—CONTINUED.

NAMES.	SCHOOLS.	RESIDENCES.	CERTIFI- CATES.
Hassen, Miss Kate M.	Shotwell Street Primary.	608 Shotwell.	State Ed.
Hawes, Miss S. E.	Potrero Primary.	Napa street, Potrero.	State Ed.
Hawley, Miss M. E.	Noe & Temple Street Primary	233 San Jose avenue.	1st.
Hayburn, Miss Marguerite E.	West Mission Primary.	405 Gough.	1st.
Haydon, Miss S. F.	Bernal Heights.	603 Bartlett.	1st.
Hazleton, Mrs. R.	Denman Grammar.	1414 Jackson.	State Ed.
Heinicke, Miss Emma M.	South Cosmopolitan Primary	2207 Pine.	1st.
Heineberg, Miss Laura.	South Cosmopolitan Primary	338 Golden Gate avenue.	State Ed.
Heney, Miss Libbie S.	Turk Street Primary.	621 Fell.	State Ed.
Hendry, Miss Maggie.	Washington Grammar.	314 Branan.	1st.
Henderson, Miss Mary J.	Whittier Primary.	12 Ash avenue.	Life.
Herrick, Miss Kate.	Lincoln Evening.	324 Turk.	
Heath, Miss R. Lee.	Substitute Class.	1512 Taylor.	1st.
Hitchens, Miss Lizzie.	Substitute Class.	115 Mason.	2d.
Herndon, Miss A. C.	Haight Primary.	621 Bush.	Life.
Herbst, Mr. Adolph.	South Cosmopolitan Gram'r.	615 Jones.	Life.
Hession, Miss Kate.	Garfield Primary.	2023 Polk.	1st.
Hickey, Miss Kate M.	Tehama Primary.	512 Jones.	State Ed.
Hester, Miss Ida M.	Whittier Primary.	2641 Howard.	1st.
Hill, Miss Annie A.	Shotwell Street Primary.	608 Fillmore.	Life.
Hillman, Miss Jennie C.	Mission Grammar.	2027 Mission.	1st.
Hinde, Miss Annie.	Whittier Primary.	764 Bryant.	2d.
Hitchcock, Miss H. M.	South Cosmopolitan Gram'r.	1010 Powell.	1st.
Hobe, Miss S. A.	Lincoln Grammar.	604 Capp.	1st.
Hochheimer, Miss Julia.	Union Primary.	1506 Larkin.	Life.
Hodgkinson, Miss Frances.	Substitute Class.	312 Eddy.	1st.
Hoffman, Mrs. M. L.	Girls' High.	534 Bartlett.	Life.
Honigsberger, Miss Etta.	Valencia Grammar.	635 Larkin.	1st.
Hoops, Mrs. M. A.	Starr King Primary.	69 Valley St., Oakland.	State Ed.
Hopkins, Mrs. Laura T.	Starr King Primary.	2328 Mission.	2d.
Hoppe, Miss May E.	South Cosmopolitan Primary	1029 McAllister.	2d.
Horton, Miss Nettie.	Hayes Valley Grammar.	3415 Geary.	1st.
Horton, Miss Maria.	Hamilton Grammar.	3415 Geary.	1st.
Horn, Miss Laura T.	Tehama Primary.	1518 Mission.	State Ed.
Houston, Miss Minnie A.	Garfield Primary.	4 Calhoun.	2d.
Houston, Miss Jennie.	Clement Grammar.	230 Green.	2d.
Hough, Mrs. Susan E.	Spring Valley Grammar.	1217 Filbert.	Life.
Howard, Miss L. B.	Fairmount.	1710 Buena Vista.	State Ed.
Hoy, Miss Naomi E.	Tehama Primary.	1114 Leavenworth.	Life.
Hucks, Miss A. E.	Lincoln Grammar.	1626 Sacramento.	Life.
Humphrey, Mrs. M.	Valencia Grammar.	126 Rose avenue.	Life.
Hunt, Miss C. L.	Girls' High.	1026 Hyde.	Life.
Hunt, Miss Abbie L.	Lincoln Primary.	59 Tehama.	Life.
Huntley, Miss A. M.	Hayes Valley Grammar.	1636 Sacramento.	Life.
Hurley, Miss J. M. A.	Spring Valley Primary.	1916 Pacific avenue.	Life.
Hurley, Miss M. E.	Washington Grammar.	1916 Pacific avenue.	State Ed.
Hefron, Miss Nellie L.	Moulder.	610 Haight.	2d.
Ingram, Mrs. V. C.	Mission Primary.	2312 Steiner.	State Ed.
Itsel, Mr. A. J.	Hayes Valley Grammar.	183 O'Farrell.	Life.
Jacobs, Miss R.	Lincoln Grammar.	215 Powell.	Life.
Jacobs, Miss Susie.	Tehama Primary.	215 Powell.	State Ed.
Jacobs, Miss C.	Haight Primary.	215 Powell.	State Ed.
Jenkins, Miss S. B.	Fairmount.	1403 Steiner.	State Ed.
Jewell, Miss R. A.	Denman Grammar.	333 Guerrero.	State Ed.
Jewett, Miss F.	Girls' High.	711 Jones.	Life.
Jewett, Miss Annie S.	Columbia Grammar.	819 Graham.	Life.
Johnson, Miss Marie J.	Shotwell Street Primary.	124 Golden Gate avenue.	State Ed.
Johnson, Miss Annie M.	Golden Gate.	129 Turk.	State Ed.
Johnston, Miss Jennie.	Sanchez Street Primary.	121 Capp.	2d.
Johnston, Miss Clara.	West End.	121 Capp.	Life.
Jones, Miss S. J.	Franklin Grammar.	101 Hartford.	State Ed.
Jones, Mrs. Maud H.	Lincoln Evening.	718 Leavenworth.	Life.
Joseph, Mrs. Sarah N.	Rincon Grammar.	Brunswick House, 6th and Howard.	Life.

## LIST OF TEACHERS, SCHOOLS AND RESIDENCES—CONTINUED.

NAMES.	SCHOOLS.	RESIDENCES.	CERTIFI- CATES.
Joselyn, Miss Adah M.	Spring Valley Primary.	941 Valencia.	2d.
Karak, Miss Sarah J.	South San Francisco.	2226 Post.	2d.
Kennedy, James G.	Hamilton Gram. Evening.	2 Bond.	Life.
Karatar, Miss A. C.	Cleveland.	217½ Polk.	1st.
Keady, Miss Maggie T.	Mission Primary.	1213 Mission.	2d.
Keane, Miss Annie M.	Potrero Primary.	7 Meacham.	State Ed.
Keating, Miss M. E.	Lincoln Primary.	1112 Leavenworth.	2d.
Keep, Miss Hattie.	South End.	158½ ave. South S. F.	1st.
Kelly, Miss Susie E.	Clement Grammar.	136 Seventh.	State Ed.
Kelly, Mrs. Lettie.	Broadway Grammar.	Pine, near Divisadero.	Life.
Kervan, Miss Ida.	Redding Primary.	610 Powell.	2d.
Kennedy, Miss Kate.	North Cosmopolitan Gram'r.	1668 Thirteenth, Oakland.	Life.
Kewin, Miss Jennie E.	Hayes Valley Primary.	120 Julian ave.	2d.
Kincaid, Mrs. M. W.	Girls' High.	2219 Pacific ave.	Life.
Kinne, Mr. H. C.	Eighth Street Primary.	17 Fourth.	Life.
Klink, Miss Jennie S.	Lobos Avenue.	1125 Bush.	State Ed.
Knowlton, Mr. Ebenezer.	Commercial.	876 Shotwell.	Life.
Koenig, Mr. E. J.	South Cos. Primary, Evening.	St. Ann's Building.	1st.
Kollmeyer, Miss Kate A.	Shotwell Street Primary.	614 Powell.	1st.
Kraus, Miss S.	Lincoln Primary.	1031 McAllister.	Life.
Kennedy, Mr. N.	Lincoln Evening.	132 Sixth.	Life.
Kraus, Miss Lulu.	Lincoln Evening.	1031 McAllister.	1st.
Kean, Miss Katie.	Whittier Primary.	7 Meacham Place.	1st.
Kaplan, Miss M. E.	Garfield Primary.	823 Larkin.	1st.
Kennedy, Miss Annie.	Greenwich Street Primary.	110 Haight.	1st.
Ladd, Miss Florence L.	S. Cosmop. Primary, Evening.	415 Twenty-second.	1st.
Lake, Miss Mary.	Redding Primary.	1620 Jackson.	1st.
Lahancy, Miss Mary E.	West Mission Primary.	South San Francisco.	1st.
Laird, Miss Katie.	Moulder Primary.	1532 Clay.	2d.
Leland, Miss Alice.	North Cosmopol'n Grammar.	908 Sutter.	1st.
Lambert, Mr. Daniel.	Lincoln Grammar.	534 Haight.	Life.
Langstadter, Miss Pauline.	Hamilton Grammar.	816 Ellis.	Life.
Louderback, Miss L.	Noe & Temple St. Primary.	38 Willow.	2d.
Leighton, Mrs. Mary A.	Franklin Grammar.	225 Eighth.	2d.
Learned, Miss Emily G.	Clement Grammar.	628 Sutter.	1st.
Lester, Mrs. E. F.	Franklin Grammar.	757 Howard.	2d.
Leszynsky, Mr. Isidor.	Commercial.	1012 Polk.	1st.
Lewis, Miss Frances R.	Clement Grammar.	710 Golden Gate ave.	1st.
Lewis, Miss Julia.	Longfellow Primary.	1409 Van Ness ave.	State Ed.
Lewis, Miss Johanna C.	Shotwell Street Primary.	44 Hill.	1st.
Levinson, Miss Rose.	North Cosmopol'n Grammar.	1601 Post.	Life.
Levy, Miss Hattie M.	West Mission Primary.	1157 Mission.	State Ed.
Libby, Miss Georgia F.	Hayes Valley Grammar.	1616 Eddy.	State Ed.
Idillie, Miss S. P.	Denman Grammar.	Berkeley.	Life.
Lindberg, Miss Emily U.	North Cosmopol'n Grammar.	806 Leavenworth.	Life.
Lipman, Miss M. E.	Hayes Valley Grammar.	1011 Polk.	Life.
Little, Miss M. T.	Valencia Grammar.	1331 Jessie.	State Ed.
Little, Miss Lizzie B.	Clement Grammar.	2127 Bush.	State Ed.
Little, Miss Della E.	Turk Street Primary.	2127 Bush.	1st.
Littlefield, Miss N. A.	Lombard Street Primary.	511 Gough.	Life.
Loughran, Miss S. F.	Fairmount.	933 Seventeenth.	State Ed.
Loud, Mrs. Emily S.	Emerson Primary.	923 Hyde.	State Ed.
Loughlin, Miss Daisy.	Pacific Heights Primary.	2219 Pacific ave.	1st.
Love, Mrs. J.	Denman Grammar.	1714 Clay.	State Ed.
Lochsinger, Miss Annie.	Pacific Heights.	921 Golden Gate ave.	1st.
Lundt, Miss J. C.	Mission Primary.	2104 Mason.	State Ed.
Lynch, Miss Alice E.	Lincoln Primary.	333 McAllister.	State Ed.
Lyster, Mr. Albert.	South San Francisco.	Brunswick House.	Life.
Lynch, Miss Josie.	Haight Primary.	333 McAllister.	1st.
Lyons, Miss Erin H.	Substitute Class.	Cor. Filbert & Leavenworth.	1st.
Mandeville, Miss Kate.	Clement Grammar.	2515 Polson.	2d.
McCarthy, Miss Ella L.	Irving.	915 Sansome.	1st.
McCarty, Miss Tillie.	Lincoln Primary.	1148 Sutter.	2d.
McColgan, Miss Kate F.	South Cosmopol'n Grammar.	1809 Ellis.	Life.



## LIST OF TEACHERS, SCHOOLS AND RESIDENCES—CONTINUED.

NAMES.	SCHOOLS.	RESIDENCES.	CERTIFI- CATES.
McConnell, Miss Q. O.	Hayes Valley Primary.	546 Turk.	State Ed.
McCorkell, Miss Lizzie.	Union Primary.	1404 Mason.	1st.
McDade, Mr. J. J.	Lincoln Evening.	Santa Clara & Hampshire.	1st.
McDermott, Miss Annie F.	Whittier Primary.	214 Grove.	State Ed.
McDonnell, Miss May.	Denman Grammar.	826 Turk.	1st.
McFadden, Miss Kate.	Hayes Valley Grammar.	1607 Turk.	Life.
McFarland, Miss Nellie F.	Clement Grammar.	118 Twelfth.	State Ed.
McGeough, Miss Rose.	Fairmount Primary.	908 Sansome.	2d.
McGreavy, Miss Elizabeth J.	Mission Primary.	988 Howard.	2d.
McGuire, Miss Mary Ann.	Longfellow Primary.	16th ave., South S. F.	2d.
McGuire, Miss Blanche.	South San Francisco.	16th ave., South S. F.	1st.
McHugh, Miss Mary C. T.	Union Primary.	1317 Green.	1st.
McKenzie, Miss Margaret.	Starr King Primary.	2507 Sacramento.	Life.
McKown, Mrs. M. E.	Lincoln Grammar.	1316 Steiner.	Life.
McLoughlin, Miss Agnes.	Franklin Grammar.	327 Eddy.	State Ed.
McLoughlin, Mrs. Kate.	Lincoln Primary.	308 Hyde.	Life.
McTamney, Miss Martha.	Substitute Class.	314 Jessie.	1st.
McNamara, Miss Agnes.	Golden Gate Primary.	1711 Howard.	State Ed.
McNear, Miss L. C.	South Cosmopolitan Primary.	225 Oak.	State Ed.
McNicoll, Miss Belle.	Columbia Grammar.	441 Twenty-second.	Life.
McClain, Miss Katie.	Franklin Grammar.	1104 Taylor.	2d.
McDonnell, Miss Louisa.	Grant Primary.	826 Turk.	2d.
McVerry, Miss Mary.	Irving Primary.	2110 Hyde.	2d.
Macaulay, Miss Sarah.	Mission Grammar.	306 Hyde.	1st.
Maccord, Miss Louisa.	Whittier Primary.	1414 Larkin.	2d.
Macdonald, Miss Kate.	Franklin Grammar.	1022 Twentieth.	Life.
MacDonald, Mr. A. H.	Lincoln Evening.	1210 Dolores.	1st.
Madden, Miss May.	Mission Grammar.	1627 Folsom.	1st.
McKay, Miss Margaret.	Lincoln Evening.	1209 Fowell.	1st.
Madden, Mrs. Mary C.	Potrero.	1780 Folsom.	2d.
McLaughlin, Miss A.	South Cos. Primary, Evening.	2617 Bush.	1st.
Maher, Miss J. G.	Lincoln Evening.	671 Harrison.	2d.
Murphy, Miss Julia A.	Cleveland Primary.	2194 Polk.	2d.
Michenor, Mrs. M. E.	Potrero.	1204 Larkin.	1st.
Magner, Miss Mary.	Shotwell Street Primary.	921 Greenwich.	State Ed.
Mahoney, Miss Eily S.	Garfield Primary.	1503 Pacific.	2d.
Mahoney, Miss Margaret J.	Cleveland.	1503 Pacific.	1st.
Maiera, Miss Florence.	Lincoln Evening.	1032 Mission.	1st.
Maloney, Miss Kate A.	Potrero Primary.	1512 Mission.	2d.
Maloney, Miss Nellie A.	Whittier Primary.	1512 Mission.	2d.
Mallory, Miss Ida R.	South San Francisco.	126 Fifth.	State Ed.
Mann, Mr. A. L.	Boys' High.	2402 Mission.	Life.
Mann, Mrs. S. J.	Valencia Grammar.	2402 Mission.	Life.
Manning, Miss Agnes M.	Lincoln Primary.	711 Jones.	Life.
Martin, Miss Fannie.	Redding Primary.	511 O'Farrell.	1st.
Martin, Miss Ada.	Greenwich Street Primary.	Russ House.	1st.
Martin, Miss Alice M.	Emerson Primary.	2914 California.	1st.
Martin, Miss Emille L.	South Cos. Primary.	6 Pfeiffer.	2d.
Mathieson, Miss Grace.	Hamilton Grammar.	230 Green.	State Ed.
Mayborn, Mrs. M. J.	Denman Grammar.	San Pablo ave., Oakland.	Life.
Mayers, Miss Rachel.	Cleveland.	3031 Sixteenth.	State Ed.
Mayers, Miss Bessie.	Tehama Primary.	3031 Sixteenth.	2d.
Meighan, Miss Kate.	Point Lobos.	1425 Polk.	1st.
Melrose, Mrs. Mary H.	Redding Primary.	1310 Broderick.	Life.
Menges, Miss C. A.	Hayes Valley Grammar.	326 Jessie.	State Ed.
Metcalf, Miss Alice H.	Buena Vista.	2819 Folsom.	1st.
Meyer, Miss Rachel.	Grant Primary.	907 McAllister.	2d.
Miley, Miss A.	South Cos. Grammar.	2401 Buchanan.	1st.
Miles, Mrs. S. A.	Valencia Grammar.	3 Fulton.	Life.
Miller, Miss E. J.	Valencia Grammar.	7134 Treat avenue.	Life.
Miller, Miss Minnie E.	Columbia Grammar.	1935 Jessie.	State Ed.
Miller, Miss S. E.	Haight Primary.	239 Sixteenth.	Life.
Minna, Mr. G. W.	Girls' High.	1417 Sacramento.	Life.
Minor, Miss G. D.	Potrero Primary.	787 Howard.	1st.

## LIST OF TEACHERS, SCHOOLS AND RESIDENCES—CONTINUED.

NAMES.	SCHOOLS.	RESIDENCES.	CERTIFI- CATES.
Molloy, Miss Bessie.....	Lincoln Primary.....	314 Powell.....	Life.
Mooney, Miss Fannie.....	South Coa. Primary.....	711 Jones.....	2d.
Moore, Miss Margaret.....	Greenwich Street Primary.....	1410 Taylor.....	1st.
Moore, Mrs. Matilda E.....	Sanchez Street Primary.....	126 Collingwood.....	Life.
Morse, Miss Caro.....	North Coa. Grammar.....	420 Post.....	1st.
Morse, Miss Georgia C.....	Lincoln Primary.....	1148 Sutter.....	State Ed.
Morey, Miss Sabie E.....	Tehama Primary.....	1028 1/2 Folsom.....	1st.
Morgan, Miss Rose E.....	Lincoln Grammar.....	21 Oak Grove avenue.....	State Ed.
Moroney, Miss M. E.....	Franklin Grammar.....	1628 Eddy.....	Life.
Morton, Miss Ella J.....	Hamilton Grammar.....	1016 Webster.....	1st.
Morton, Miss C. L.....	Valencia Grammar.....	450 Bartlett.....	State Ed.
Morrison, Miss Mary E.....	Broadway Grammar.....	2328 Folsom.....	State Ed.
Moyrhan, Miss Lizzie J.....	Valencia Grammar.....	310 Seventh.....	2d.
Moyrhan, Miss Nora.....	Cleveland.....	310 Seventh.....	State Ed.
Murphy, Miss Nellie.....	Hayes Valley Grammar.....	219 1/2 Polk.....	State Ed.
Murphy, Miss M. M.....	Washington Grammar.....	1532 Polk.....	1st.
Murphy, Miss Mary C.....	Fairmount.....	228 Seventeenth.....	2d.
Mury, Miss Lili.....	South Coa. Primary.....	317 Bush.....	2d.
Meader, Miss E. L.....	Grant.....	416 Vallejo.....	1st.
Myers, Mrs. L. M.....	Columbia Grammar.....	203 Hyde.....	1st.
Narjot, Miss Louise.....	Lincoln Evening.....	1500 Taylor.....	2d.
Nelson, Miss A. G.....	Haight Primary.....	1023 Twenty-first.....	2d.
Newhall, Mrs. Cecelia.....	Powell Street Primary.....	1915 Sacramento.....	2d.
Noon, Miss Mary G.....	Starr King Primary.....	317 Haight.....	2d.
Orr, Miss Lizzie A.....	Whittier Primary.....	2104 Howard.....	2d.
Owen, Mrs. Annie E.....	Clement Grammar.....	908 Leavenworth.....	2d.
Owens, Miss Nellie M.....	Girls' High.....	711 Jones.....	Life.
O'Brien, Miss Kate C.....	Substitute Class.....	1709 Broderick.....	2d.
O'Brien, Miss Kate M.....	Substitute Class.....	927 Natoma.....	1st.
O'Brien, Miss Julia.....	South Coa. Grammar.....	531 Turk.....	Life.
O'Brien, Miss Kate.....	Hayes Valley Grammar.....	319 Oak.....	Life.
O'Brien, Miss Annie.....	South San Francisco.....	321 Clementina.....	1st.
O'Brien, Miss Maggie.....	Spring Valley Primary.....	319 Oak.....	2d.
O'Donoghue, Mr. M. F.....	South Coa. Grammar.....	921 Folsom.....	State Ed.
O'Leary, Miss K. R.....	South Coa. Grammar.....	2116 Howard.....	Life.
O'Loughlin, Miss Nellie.....	South Coa. Grammar.....	116 Turk.....	Life.
O'Malley, Miss Addie.....	Powell Street Primary.....	918 Powell.....	2d.
O'Neal, Mrs. M. L.....	Lincoln Grammar.....	Sierra and Tennessee.....	State Ed.
O'Rourke, Miss M.....	Lincoln Grammar.....	232 Page.....	State Ed.
Pace, Miss Delia E.....	Pacific Heights.....	730 Post.....	1st.
Palmer, Mrs. A. C.....	Lincoln Grammar.....	684 Mission.....	1st.
Parker, Miss Jean.....	Broadway Grammar.....	1320 Jones.....	Life.
Parker, Miss R. S.....	Pacific Heights.....	2222 Jackson.....	State Ed.
Parolin, Mrs. M. J.....	Franklin Grammar.....	151 1/2 Powell.....	Life.
Patton, Miss Jessie R.....	Mission Grammar.....	1659 Mission.....	State Ed.
Patton, Miss Libbey M.....	Starr King Primary.....	1659 Mission.....	1st.
Patterson, Miss I.....	Lincoln Grammar.....	59 Hoff avenue.....	Life.
Peake, Mrs. Bessie M.....	West Mission Street Primary.....	116 Capp.....	2d.
Peckin, Miss Celina R.....	Broadway Grammar.....	1778 Green.....	Life.
Peck, Miss Annie E.....	Sanchez Street Primary.....	120 Guerrero.....	State Ed.
Phillips, Miss H.....	South Coa. Grammar.....	608 Polk.....	State Ed.
Phillips, Miss Mary.....	Valencia Grammar.....	2719 Folsom.....	1st.
Phelps, Mrs. J. H.....	Rincon Grammar.....	1316 California.....	1st.
Pike, Miss Anna E.....	Broadway Grammar.....	313 Taylor.....	State Ed.
Plummer, Miss Albertine.....	Sanchez Street Primary.....	320 Castro.....	State Ed.
Plunkett, Mrs. C. F.....	Columbia Grammar.....	231 San Jose ave.....	Life.
Poole, Mrs. Ella Marie.....	Longfellow Primary.....	44 Third.....	2d.
Prag, Mrs. M.....	Girls' High.....	800 Ellis.....	Life.
Frescott, Miss D. S.....	Hayes Valley Grammar.....	1529 Polk.....	Life.
Prior, Mr. Philip.....	Bernal Heights.....	Mission, south of 28th.....	Life.
Prevost, Miss Lottie E.....	Lincoln Primary.....	708 Fell.....	State Ed.
Putnam, Miss C.....	Denman Grammar.....	1012 Washington.....	1st.
Piper, Miss Lily K.....	Substitute Class.....	Bay View, S. San Fran'co.....	1st.
Quinlan, Miss Kate F.....	Substitute Class.....	306 Grove.....	2d.

## LIST OF TEACHERS, SCHOOLS AND RESIDENCES—CONTINUED.

NAMES.	SCHOOLS.	RESIDENCES.	CERTIFI- CATES.
Raelet, Miss Victoria M.	Spring Valley Grammar.	1518 Broadway.	Life.
Radford, Miss Cassie M.	Washington Grammar.	1425 Sacramento.	1st.
Radford, Miss Maggie V.	Substitute Class.	1425 Sacramento.	1st.
Reinstein, Miss Gusie.	Substitute Class.	506 Ellis.	2d.
Ragan, Mr. Denis F.	Lincoln Evening.	441 Minna.	1st.
Raukin, Miss Belle.	Denman Grammar.	1527 Sutter.	Life.
Rattan, Mr. Volney.	Girls' High.	1511 La kin.	Life.
Rahney, Miss Julia.	Lincoln Evening.	303 Davis.	1st.
Reed, Mr. Lafayette W.	Valencia Grammar.	1517 La kin.	Life.
Renwick, Miss Louisa.	Mission Primary.	527 Capp.	1st.
Reynolds, Mrs. F. E.	Hayes Valley Grammar.	1532 Polk.	Life.
Rightmire, Miss Sallie A.	Emerson Primary.	1417 Scott.	Life.
Robertson, Miss Aug. C.	Rincon Grammar.	730 Sutter.	Life.
Robertson, Mr. W. A.	Hamilton Grammar.	15 Elliot Park.	Life.
Robertson, Miss Margery C.	Powell Street Primary.	2 Chelsea Place.	Life.
Robertson, Miss Maggie.	Mission Grammar.	500 Eddy.	2d.
Roberts, Miss M. E.	South Cos. Prim.ary.	157 Silver.	Life.
Robinet, Miss Minna.	Mission Primary.	2132 Howard.	State Ed.
Robinet, Miss Margaretta.	Shotwell Street Primary.	2132 Howard.	1st.
Roche, Miss Tessie J.	Garfield Primary.	417 Eddy.	2d.
Roche, Miss Annie J.	Cleveland.	417 Eddy.	State Ed.
Rollins, Miss Annie.	Turk Street Primary.	231 Oak.	1st.
Roper, Miss Mary A.	Lincoln Primary.	312 Eddy.	Life.
Rowe, Miss A. A.	Valencia Grammar.	2327 Howard.	Life.
Rothganger, Mr. George.	Lincoln Evening.	834 Harrison.	2d.
Ryan, Miss M.	Valencia Grammar.	134 Powell.	1st.
Roberts, Miss Maria.	Starr King Primary.	102 Austin.	2d.
Rosenberg, Miss Leah.	Eighth Street Primary.	1306 Laguna.	2d.
Rowe, Miss M. M.	Greenwich Primary.	1517 1/2 Taylor.	2d.
Rowe, Miss Katie R.	Tehama Primary.	18 Perry.	1st.
Ryan, Miss Lizzie T.	Tehama Primary.	606 Folsom.	2d.
Ryder, Miss L. E.	Lincoln Grammar.	652 Market.	State Ed.
Reynolds, Miss M. B.	Potrero.	515 Jones.	1st.
Rich, Miss Eliza.	Irving.	914 La kin.	1st.
Saunders, Miss Josephine.	Powell Street Primary.	632 Polk.	2d.
Shaw, Miss Emily M.	Normal Class.	522 Seventeenth, Oakland.	
Smith, Miss Helen E.	Commercial.		2d.
Simpson, Miss Lily.	Eighth Street Primary.	312 Sixth.	2d.
Salisbury, Miss M. A.	Powell St. Primary.	704 Powell.	Life.
Saries, Mrs. Julia.	Pacific Heights.	2327 California.	1st.
Scherer, Miss M. A.	South End.	769 Folsom.	1st.
Schendel, Miss Ada.	Lincoln Primary.	408 California avenue.	1st.
Scheier, Miss Hattie.	Moulder.	9 Hyde.	1st.
Scott, Mr. A. W.	Washington Evening.	1020 Clay.	1st.
Scott, Miss Josie.	Washington Grammar.	1020 Clay.	1st.
Sellers, Miss Mattie D.	Whittier Primary.	2032 Mission.	2d.
Selling, Miss Eugenia.	North Cosmopol'n Grammar.	1310 Geary.	1st.
Selling, Miss Nathalia.	Redding Primary.	1521 Geary.	Life.
Semlar, Miss Belle L.	Lombard.	Lombard.	1st.
Shaw, Mrs. B. A.	Lincoln Primary.	307 Hayes.	Life.
Shaw, Miss Ida E.	Emerson Primary.	1621 Sutter.	2d.
Shea, Miss M. T.	Lincoln Grammar.	2613 Polk.	State Ed.
Shea, Miss Annie B.	Spring Valley Grammar.	2613 Polk.	2d.
Shearer, Miss F. M.	South Cosmopol'n Grammar.	1534 Bush.	State Ed.
Shepherd, Miss Kate.	Whittier Primary.	18 Twelfth.	Life.
Sherman, Miss Etta.	Whittier Primary.	2601 Howard.	2d.
Shipman, Miss Eliza H.	Broadway Grammar.	2621 California.	1st.
Short, Miss Julia B.	Spring Valley Grammar.	228 Capp.	Life.
Sibley, Mr. J. M.	Boys' High.	513 Jones.	Life.
Simms, Miss Esther.	Clement Grammar.	20 Elgin Park.	1st.
Simon, Mrs. Minna.	Hayes Valley Grammar.	1811 Baker.	State Ed.
Simon, Miss Malvina.	Whittier Primary.	1638 Van Ness avenue.	2d.
Simonsen, Miss Bertha.	Sanchez St. Primary.	724 Harrison.	2d.
Simpson, Miss Lizzie A.	Lincoln Evening.	2335 Mission.	2d.

## LIST OF TEACHERS, SCHOOLS AND RESIDENCES—CONTINUED.

NAMES	SCHOOLS	RESIDENCES	CERTIFI- CATES
Sisson, Mrs. Caroline M.	Hamilton Grammar	2506 Bush	Life.
Slavan, Miss Mary H.	Cleveland	468 Seventeenth	2d.
Slavan, Miss Annie E.	Cleveland	468 Seventeenth	Life.
Slooper, Miss Mary	Longfellow Primary	223 Shotwell	State Ed.
Smiley, Miss Helen M.	Emerson Primary	1634 Clay	1st.
Smith, Miss Jessie	Girls' High	1239 Pine	Life.
Smith, Miss Addie G.	Rincon Grammar	1239 Pine	1st.
Smith, Mrs. Virginia E.	North Cosmopol'n Grammar	427 Sutter	1st.
Smith, Miss Jennie	Longfellow Primary	1239 Pine	Life.
Smith, Miss Sara H.	Powell St. Primary	2623 Sacramento	1st.
Smith, Miss Maggie A.	Lincoln Primary	409 McAllister	1st.
Smith, Miss Mary J.	Mission Primary	409 McAllister	2d.
Smyth, Miss Maggie	Longfellow Primary	22 Hampton Place	2d.
Solomon, Miss Mary	Powell Street Primary	1620 Clay	Life.
Somerset, Miss C. J.	Franklin Grammar	314 Turk	State Ed.
Soule, Miss M. L.	Girls' High	605 Polk	Life.
Soule, Miss F. L.	Lincoln Grammar	1935 Stockton	Life.
Silver, Mrs. M.	Longfellow Primary	1431 O'Farrell	1st.
Steger, Miss Mollie E.	Redding Primary	1641 Mission	2d.
Sutherland, Miss A. E.	Grant Primary	1148 Sutter	2d.
Spalding, Miss Harriet	Haight Primary	243 Ninth	State Ed.
Spear, Miss Cora L.	Noe and Temple St. Primary	2908 Folsom	1st.
Sprague, Miss Abbey F.	Whittier Primary	921 Haight	Life.
Sprott, Miss Maggie	Lincoln Evening	4 Ford	Life.
Stallman, Miss Nettie C.	Hamilton Grammar	1824 Sutter	State Ed.
Stanford, Miss Belle M.	South Cos. Primary	2401 Buchanan	State Ed.
Stebbins, Miss Minnie G.	Powell St. Primary	1906 Stockton	1st.
Steele, Mrs. Mattie	Hamilton Grammar	536 Polk	Life.
Steele, Mrs. Minna	South Cos. Primary	1833 Union	Life.
Stewart, Mrs. F. A.	Greenwich St. Primary	28 Glen Park ave.	2d.
Stewart, Miss Jessie M.	Union Primary	1571 7th ave., E. Oakland	1st.
Stincoen, Miss Emma E.	Whittier Primary	n. e. cor. Chestnut & Hyde	Life.
Stincoen, Miss Alice M.	Grant Primary	n. e. cor. Chestnut & Hyde	Life.
Stohr, Miss Tillie C.	Turk St. Primary	837 Golden Gate ave.	Life.
Stone, Miss Martha	Franklin Grammar	1003 Leavenworth	Life.
Stone, Mr. W. W.	South San Francisco	31 Liberty	Life.
Stone, Miss Eugenie	Redding Primary	1513 Sacramento	1st.
Stone, Mr. Dudley C.	Commercial	1513 Sacramento	Life.
Stowell, Miss Mary E.	Rincon Grammar	546 Turk	Life.
Stowell, Miss Perais M.	Hayes Valley Primary	546 Turk	Life.
Stovall, Miss Anna M.	Union St. Experimental	32 Glen Park ave.	1st.
Straus, Miss Ida R.	Hamilton Grammar	1309 Lark n.	State Ed.
Sturges, Mr. Seldon	Washington Grammar	734 Shotwell	Life.
St. John, Mrs. Hester A.	Rincon Grammar	915 McAllister	Life.
Sullivan, Mrs. Theresa M.	North Cos. Grammar	1419 Washington	Life.
Sullivan, Miss Nellie F.	Mission Grammar	321 Fell	State Ed.
Sullivan, Miss Nora G.	Mission Grammar	321 Fell	Life.
Sullivan, Miss Angie M.	Columbia Grammar	21 Langton	1st.
Sullivan, Miss Nora M.	Mission Primary	1218 Twenty-first	2d.
Summerfield, Miss Alice	Grant Primary	501 Geary	State Ed.
Sweeney, Miss C. L.	Haight Primary	1613 Stevenson	State Ed.
Swett, Mr. John	Girls' High	1419 Taylor	Life.
Sykes, Mrs. Jeannette M.	Sanchez St. Primary	9 Dehon	State Ed.
Stewart, Miss Virginia	Columbia Grammar	9 Glen Park ave.	1st.
Scholl, Miss Emma	Eighth St. Primary	873 Mission	1st.
Stolz, Miss Rose B.	Substitute Class	405 Leavenworth	1st.
Thomas, Miss Ella	Starr King Primary	10 South Park	2d.
Tenant, Miss Carrie D.	Substitute Class	1896 Broadway	2d.
Thor, Miss Marian S.	Substitute Class	1025 Alabama	1st.
Tieroff, Miss Laura N.	Substitute Class	1118 Kearny	2d.
Taylor, Mrs. Agnes	Spring Valley Grammar	1626 Sacramento	1st.
Templeton, Mr. M. L.	Boys' High	233 Fair Oaks	Life.
Templeton, Miss O. A.	Hayes Valley Grammar	2733 Sixteenth	Life.
Templeton, Miss L. S.	Franklin Grammar	2733 Sixteenth	Life.

## LIST OF TEACHERS, SCHOOLS AND RESIDENCES—CONTINUED.

NAMES.	SCHOOLS.	RESIDENCES.	CERTIFI- CATES.
Templeton, Miss Lou.....	Pacific Heights.....	330 Seventeenth.....	Life.
Thayer, Miss Rose.....	Chinese School.....	807 Stockton.....	1st.
Thompson, Miss Roberta A.....	Turk St. Primary.....	2213 Fillmore.....	State Ed.
Thompson, Miss H. M.....	Girls' High.....	546 Turk.....	Life.
Thompson, Miss Helen M.....	Spring Valley Grammar.....	2213 Fillmore.....	Life.
Thompson, Miss Sadie R.....	Turk St. Primary.....	2203 Larkin.....	State Ed.
Thompson, Miss Nellie S.....	Pacific Heights.....	1812 Sacramento.....	2d.
Thurston, Miss S. E.....	Girls' High.....	1312 Jones.....	State Ed.
Tierman, Mrs. Annie E.....	Hamilton Grammar.....	428 Oak.....	Life.
Tideman, Miss D.....	South Cos. Grammar.....	1630 Eddy.....	1st.
Tompkins, Mrs. Cora.....	Golden Gate Primary.....	721 Shotwell.....	Life.
Tompkins, Miss Rosa.....	South Cosmopolitan Primary.....	1013 Filbert.....	Life.
Trask, Mrs. A. S.....	Greenwich St. Primary.....	621 Capp.....	2d.
Trask, Mrs. A. L.....	Valencia Grammar.....	705 Hyde.....	State Ed.
Traynor, Miss Mary E.....	Lobos Avenue.....	1235 Telegraph ave., Oak'd.....	Life.
Troyer, Mrs. Virginia.....	Starr King Primary.....	Alameda.....	Life.
True, Mr. Chas. F.....	Clement Grammar.....	717 1/2 O'Farrell.....	1st.
Turner, Miss M.....	Noe & Temple St. Primary.....	314 Seventeenth.....	2d.
Twomey, Miss A. F. R.....	Cleveland.....	829 Fifteenth.....	2d.
Tarpey, Miss W. L.....	West Mission Primary.....	726 O'Farrell.....	1st.
Unger, Miss Annie.....	South Cos. Primary.....	726 O'Farrell.....	1st.
Unger, Miss Rachel.....	Spring Valley Grammar.....	811 Leavenworth.....	2d.
Yao Den Bergh, Miss Flora.....	Jackson St. Experimental.....	121 Julian ave.....	2d.
Varney, Mrs. Eliz. H. B.....	Mission Primary.....	121 Julian ave.....	1st.
Varney, Miss Mary C. B.....	Rincon Grammar.....	145 Ellis.....	Life.
Von Buchholtz, Miss M.....	South Cos. Grammar.....	223 Capp.....	State Ed.
Wade, Miss Nettie.....	Fairmount.....	808 Octavia.....	Life.
Walker, Mrs. Maggie H.....	Mission Primary.....	2215 Webster.....	1st.
Walsh, Miss Mary T.....	Grant Primary.....	1418 California.....	Life.
Washburn, Mrs. Georgia.....	Turk St. Primary.....	24 Scott place.....	2d.
Watson, Miss Louise P.....	Washington Grammar.....	106 Taylor.....	Life.
Waters, Mrs. Cordelia K.....	Washington Grammar.....	2005 Fillmore.....	1st.
Webster, Mr. R. H.....	Commercial.....	14 Guy Place.....	2d.
Webster, Miss Sadie A.....	Powell St. Primary.....	1217 Leavenworth.....	State Ed.
Weed, Miss Alice.....	Starr King Primary.....	604 Buchanan.....	1st.
Weir, Miss Minnie E.....	West End.....	1133 1/2 Pacific.....	1st.
Wettig, Miss Anna.....	Greenwich St. Primary.....	321 Eddy.....	State Ed.
Wentworth, Miss M. A.....	Hamilton Grammar.....	1525 Powell.....	Life.
Wheeler, Mrs. Jasou D.....	Golden Gate Primary.....	413 Bartlett.....	Life.
White, Mr. Win.....	Boys' High.....	2213 Larkin.....	Life.
White, Mr. Silas A.....	Valencia Grammar.....	100 Fifth.....	Life.
White, Mr. T. B.....	Boys' High.....	413 Bartlett.....	Life.
White, Miss Elizabeth.....	Tehama Primary.....	629 O'Farrell.....	1st.
White, Miss W.....	Broadway Grammar.....	1314 Jones.....	State Ed.
Whirlow, Miss H. E.....	West End.....	619 Fell.....	2d.
Wickman, Miss Emma A.....	Hayes Valley Grammar.....	2522 Webster.....	Life.
Wideman, Dr. James.....	South Cos. Grammar.....	1227 Turk.....	Life.
Wilson, Miss S. M.....	Lincoln Grammar.....	1227 Turk.....	Life.
Wilson, Mr. J. R.....	Lincoln Grammar.....	227 Sixth.....	1st.
Williams, Mrs. M. C.....	Valencia Grammar.....	23 Lappidge.....	2d.
Williamson, Miss Ethel L.....	Shotwell St. Primary.....	230 Herman.....	Life.
Winn, Mr. A. T.....	Boys' High.....	707 1/2 McAllister.....	State Ed.
Wing, Miss Florence D.....	Irving Primary.....	123 Twelfth.....	State Ed.
Wiseman, Miss Mary.....	Golden Gate Primary.....	1618 Laguna.....	2d.
Wolf, Miss Florence S.....	Tehama Primary.....	2211 Steiner.....	Life.
Wood, Mrs. N. A.....	Hamilton Grammar.....	1012 Bush.....	Life.
Wood, Mrs. Elizabeth A.....	Tehama Primary.....	5 Yerba Buena.....	1st.
Woodland, Mrs. L.....	Garfield Primary.....	719 Polk.....	Life.
Wool, Miss H. L.....	Spring Valley Primary.....		

## LIST OF TEACHERS, SCHOOLS AND RESIDENCES—CONCLUDED.

NAMES.	SCHOOLS.	RESIDENCES.	CERTIFI- CATED.
Wright, Miss Mamie S.....	Spring Valley Grammar ....	2519 Sacramento.....	Life.
Wright, Mrs. Ada E.....	Greenwich Street Primary...	Prescott House, cor. Kear- ny and Pacific.....	Life.
Wolf, Miss Lulu.....	Laguna Honda.....	2203 Leavenworth.....	1st.
Williams, Miss Kate.....	North Col. Grammar.....	426 Clementina.....	2d.
Zweybruck, Miss A.....	South Cos Primary, Evening...	27 Fulton.....	1st.
Zweybruck, Miss Edith.....	South Cos. Grammar.....	27 Fulton.....	1st.

## LIST OF JANITORS, SCHOOLS AND RESIDENCES.

NAME.	SCHOOLS.	RESIDENCES.
Bogue, Mrs. Kate.....	Bernal Heights.....	Next to School building.
Busteed, Mrs. A.....	Noe and Temple Street.....	Twenty-sixth and Noe.
Callaghan, Mrs. K.....	Lobos Avenue Primary.....	815 Point Lobos avenue.
Carmelich, Mrs. A.....	Emerson Primary.....	2234 Post.
Chamberlain, Mrs. A.....	South End.....	William, near Henry.
Cullem, Frank.....	Lincoln Grammar.....	.....
Conway, Mrs. E.....	Golden Gate Primary.....	5 Gilbert.
Conley, Mrs. Annie.....	Laguna Honda.....	Seventh avenue, near Lo street.
Conniff, Mrs. Lavina.....	Jackson St. Experimental.....	.....
Corbett, Mrs. Kate.....	Iring Primary.....	515 Castro.
Corlett, Mrs. M.....	Lincoln Primary.....	502 Linden avenue.
Collins, A. W.....	South Cosmopol'n Grammar.....	1129 Ellis.
Daly, Miss N.....	Garfield Primary.....	1414 Kearny.
Delano, Geo. W.....	Clement Grammar.....	.....
Derrick, Mrs. L.....	Girls' High.....	705 Hyde.
Donahue, Mrs. K.....	Point Lobos.....	.....
Durham, Mrs. M.....	Union Primary.....	1420 Kearny.
Gibbons, Mrs. Mary.....	Starr King Primary.....	.....
Gaines, Mrs. K.....	Broadway Grammar.....	1423 Mason.
Gillespie, Mrs. F.....	Longfellow Primary.....	733 Bryant.
Glasgow, Mrs.....	Ocean House.....	.....
Glynn, Mrs. H.....	North half Whittier Primary.....	416 Fifth.
Gordon, Mrs. S.....	Powell St. Primary.....	909 Jackson.
Gorman, Mrs. Mary.....	West Mission St. Primary.....	28 Thirteenth.
Gregg, Mrs. J.....	Branch Girls' High.....	1023 1/2 Clay.
Jones, Mrs. Z. C.....	Denman Grammar.....	828 Bush.
Harvey, Mrs. K.....	Shotwell St. Primary.....	.....
Cole, Jas. E.....	Boys' High.....	.....
Hayes, Mrs. M.....	Lincoln Primary.....	5104 Natoma.
Hudson, Mrs. Jane B.....	Union St. Experimental.....	512 Union.
Flannigan, Kate.....	Eighth Street Primary.....	.....
Kelly, Mrs. M. T.....	Hayes Valley Primary.....	741 1/2 Tehama.
Laird, Mrs. C.....	South Cosmopol'n Primary.....	1533 Clay.
Lawler, Philip J.....	Assistant Boys' High.....	.....
Hyde, Hy. C.....	Assistant Boys' High.....	.....
Lemkau, Mrs. M.....	Mission Primary.....	243 Fifteenth.
Moran, Thos.....	Mission Grammar.....	1651 Mission.
Lyons, Mrs. Julia.....	Turk St. Primary.....	.....
Macaulay, Mrs. L.....	Redding Primary.....	6 Verba Buena.
Parks, R. M.....	Hayes Valley Grammar.....	1426 Church.
Miller, Mrs. K.....	Fairmount.....	Thirty-first and Dolores.
Murray, Mrs. M. E.....	Moulder School.....	1232 Bush.
Lessen, J. E.....	Washington Grammar.....	.....
Momm, Mrs. H.....	Columbia Grammar.....	Alabama, bet. 22d and 23d.
Kenna, Mrs. Alice.....	South half Whittier Primary.....	405 O'Farrell.
McMahon, Mrs. B.....	Rincon Grammar.....	720 Bryant.
Murphy, Mrs. M.....	Hamilton Grammar.....	360 Natoma.
Buttner, Henry.....	Valencia Grammar.....	515 Guerrero.
O'Keefe, Mrs.....	Grant Primary.....	360 Natoma.
O'Neill, Mrs. F.....	Lombard Street.....	.....
O'Rourke, Mrs.....	Five Mile House.....	Near Five Mile School.
Plunkett, G.....	Hamilton Grammar.....	.....
Quillanan, Mrs. M. C.....	West End Primary.....	Near West End School.
Vaughn, George H.....	Sanchez St. Primary.....	.....
Riordan, Mrs. M.....	Tehama Primary.....	1238 Mission.
Ross, Mrs. B.....	Greenwich St. Primary.....	1020 Valparaiso.
Egan, Mrs. M.....	Franklin Grammar.....	164 Decatur.
Smith, Mrs. Ben R.....	South San Francisco.....	Twelfth avenue, bet. N and P.
Trautman, Jno.....	Spring Valley Grammar.....	Spring Valley Grammar School.
Manning, Mrs. B.....	North Cosmopol'n Grammar.....	916 Filbert.
Johnson, Mrs. M. C.....	Haight Primary.....	.....
Vanderpool, Mr. Jacob.....	Pacific Heights.....	2419 Clay.
Wallace, Mrs. Mary G.....	Potrero Primary.....	.....
Welch, Mrs. C.....	Buena Vista Primary.....	Bryant, bet. 18th and 19th.
Whiting, Mrs. M.....	Spring Valley Primary.....	1430 Broadway.
Kelly, Mrs. Mary.....	Cleveland School.....	1807 Howard.
Russ, Mrs. J.....	Chinese School.....	807 Stockton.

Yours respectfully,

JNO. T. McGEORGHEGAN,

Secretary.

## BOOK-KEEPER'S REPORT.

SAN FRANCISCO, August 1, 1885.

HON. A. J. MOULDER, *Superintendent of Schools:*

DEAR SIR: Complying with your request, I beg leave to submit the following statement of merchandise purchased and expense for the six months ending June 30, 1885:

ARTICLES.	AMOUNT.	ARTICLES.	AMOUNT.
Ammonia.....	\$37 30	Amount brought forward.....	
Axes.....	4 30	Hatchets.....	3 72
Alcohol.....	21 00	Hose patches.....	5 00
Axle pulleys.....	34	Hinges.....	46 82
Bells.....	55 30	Inkstands.....	3 20
Brushes.....	265 05	Ink wells.....	48 75
Books.....	387 30	Inkwell covers.....	70 00
Brooms.....	85 50	Ink.....	192 00
Baskets.....	42 00	Ink erasers.....	13 70
Bibles.....	105 10	Iron rods.....	15 00
Bricks.....	5 50	Key blanks.....	5 30
Butts.....	11 98	Keros.....	7 80
Bolts.....	124 60	Kindling wood.....	94 00
Buggy.....	200 00	Knobs, door.....	18 60
Blotting-board.....	7 45	Lime.....	4 72
Brackets, hand-rail.....	18 50	Loom.....	71 00
Barn door rail.....	5 22	Laths.....	3 25
Chalk crayons.....	84 00	Locks.....	209 10
Cups, drinking.....	14 40	Mops.....	6 75
Chimneys, lamp.....	3 32	Mop handles.....	2 25
Coal fixtures.....	2 35	Mucilage.....	4 05
Charts.....	63 00	Lumber.....	1,339 36
Cloth, "enameled".....	3 75	Merit cards.....	80 00
Cloth, "desk".....	10 00	Manure.....	23 00
Cloth, "shade".....	21 35	Mortar.....	10 00
Copper balls.....	9 00	Mouldings.....	235 90
Cement.....	4 00	Miscellaneous.....	226 85
Carpets.....	30 02	Nails.....	107 59
Chemicals.....	44 97	Oil, coal.....	4 00
Castors.....	3 75	Oil, linseed.....	31 11
Dusters, feather.....	99 00	Palls.....	5 80
Drum snares.....	1 20	Paper.....	585 00
Drum brackets.....	4 50	Pens.....	380 30
Drum ears.....	3 75	Pencils, lead.....	5 00
Drum snare fasteners.....	5 25	Pencils, slate.....	115 00
Drum hooks.....	1 25	Penholders.....	8 15
Drum heads.....	32 10	Pointers.....	7 50
Drum sticks.....	4 80	Paper weights.....	4 50
Drum cord.....	6 00	Pipe, galvanized leader.....	12 75
Drum keys.....	44	Pipe, gas.....	20 89
Door mats.....	30 00	Pipe, lead.....	103 83
Draw pulls.....	7 00	Pipe, iron-stone sewer.....	12 80
Doors.....	114 75	Pipes, hose.....	5 04
Desk irons.....	28 25	Plaster Paris.....	8 01
Envelopes.....	13 60	Putty.....	28 50
Elbows, "stove-pipe".....	7 20	Paris white.....	3 84
Figures, "metallic".....	54 68	Potash.....	1 80
Files.....	6 14	Paint.....	103 15
Fittings, "pipe".....	115 99	Rubbers, blackboard.....	222 00
Grate rests.....	3 45	Rear seat irons.....	17 60
Grates, "stove".....	1 90	Rulers.....	5 25
Glue.....	10 50	Rubber stamps.....	10 00
Gas torch.....	3 50	Soap.....	55 50
Grass seed.....	12 50	Seats perforated.....	17 50
Gas fixtures.....	37 00	Scissors.....	2 00
Glass.....	180 95	Stove-pipe, galvanized.....	1 25
Hooks, "sash-pull".....	2 10	Shovels.....	4 35
Hooks, "hat".....	5 30	Screw eyes.....	6 69
Amount carried forward.....		Amount carried forward.....	



## REPORT OF THE SUPERINTENDENT

ARTICLES.	AMOUNT.	ARTICLES.	AMOUNT.
Amount brought forward .....		Amount brought forward .....	\$7,609 90
Stove polish .....	7 25	Advertising .....	\$ 390 90
Screw-drivers .....	2 70	Census .....	2,645 45
Sponges .....	7 50	Coal .....	1,377 25
Stove lining .....	2 25	Carpenter-shop labor .....	5,702 62
Sash fasteners .....	49 68	Car-fare .....	31 85
Sand paper .....	2 40	Cartage .....	12 50
Shingles .....	2 15	Gas regulator .....	90 00
Sheaves .....	21 00	Gas .....	695 95
Sash springs .....	4 90	Horse, keeping .....	168 55
Sash cord .....	64 40	Incidentals .....	265 95
Sash weights .....	3 25	Legal services .....	132 00
Smalt .....	6 88	Insurance .....	210 00
Strainers, brass .....	29 00	Postage .....	34 00
Sash tools .....	3 50	Printing .....	1,697 95
Sash .....	59 55	Piano tuning .....	34 00
Stone chimney .....	33 00	Repairs (outside) .....	1,677 41
Screws .....	13 17	Telegraph and telephone .....	799 06
Stoves .....	11 00	Washing (towels) .....	3 35
Stove brick .....	3 25	Water connections .....	24 50
Towels .....	53 75	Engrossing .....	219 45
Twine .....	2 40	Electric Pen .....	165 00
Towel rollers .....	12 50		
Turpentine .....	4 10		16,333 49
Traps, lead "S" .....	64 60		
Tan-bark .....	6 00		
Varnish .....	33 00		
Wire .....	3 70		
Washers .....	2 85		
Amount carried forward .....	\$7,609 90	Total .....	\$23,943 39

Very respectfully yours, etc.,

E. B. BULLOCK.

## COURSE OF STUDY.

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### EIGHTH GRADE.

This is the lowest grade of our schools. In all Primary Schools, having several classes of this grade, there should be at least one Receiving Class for beginners. Receiving classes should not be opened with more than forty pupils. At the close of each term all the members of the Receiving Classes who have learned to read simple words of one syllable should be placed in the regular Eighth Grade.

This grade may be taught in two divisions; but these divisions must not be formed into High or Low Eighth Grade Classes.

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### RECEIVING CLASSES.

Time, for children of average intelligence, six months. Principals may promote from these classes, in their discretion, as the pupils become qualified.

#### LANGUAGE—

Simple elementary sounds. Reading and spelling from McGuffey's Charts I, I , III, also at blackboard, sentences to be made by the pupils and printed on the board by the teacher. Vary the chart lessons by causing the children to make different statements regarding the things there spoken of. Every little sentence formed should help the children to understand the meaning of the subject.

*Never allow faulty expressions of the pupils to go uncorrected.*

Tell the children as little as possible; help them to discover for themselves.

In connection with the statement-making and conversation exercises just referred to, object-teaching should at once commence.

Things (not pictures merely) in the room might be examined and spoken

of by the children. When they think they have told all they can about glass, a desk, ink, the clock, etc., the teacher should lead them to discover other facts, at the same time printing new words and expressions, correcting errors of grammar and pronunciation, and having the pupils find the same word in various places. As a guide for the teacher in these conversation and object lessons, "Lessons on Objects, as Given to Children between the Ages of Six and Eight, in a Pestalozzian School," is recommended. In these commencing classes teachers should—and the energetic ones will—introduce the more useful games and exercises of the Kindergarten schools.

Use Wilson's Object Charts.

#### WRITING—

On slates, in properly ruled spaces and with long pencils, the simpler letters and parts of letters. Teach correct methods of sitting to desk and holding pencil.

#### MORALS—

Teachers must not content themselves with forcing pupils to shun wrongdoing through fear of the consequences. They must constantly train their pupils to like what is right, just because it is right.

Music, drawing and counting as in the Kindergarten schools. Calisthenics at least three times a day.

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### EIGHTH GRADE.

Time, one year.

#### LANGUAGE—

In low division, spelling and reading from McGuffey's Charts IV, V, VI. In high division, McGuffey's First Reader. Blackboard exercises as in Receiving Class.

#### WRITING—

With pencils on slates, or with pen or lead pencil upon loose paper properly ruled—principles, small letters, capitals, words. Copy-books, optional.

#### ARITHMETIC—

Teach children to make as many as possible combinations of sums and differences with twelve counters; the multiplication table through 4's; to add columns aloud rapidly, the sum of any column not to exceed 40.

**DRAWING—**

Low division—Simple exercises on slates or blackboard.

High division—Bartholomew's Drawing Book No. 1, New Edition.

**MUSIC—**

Teach by rote at least six songs, suitable for little children. Teach common scale. Time, ten minutes daily.

**PHYSICAL EXERCISES—**

At least three times a day.

**OBJECT LESSONS—**

Continued and enlarged.

Reference book, "Lessons on Objects in a Pestalozzian School."

Use Wilson's Object Charts.

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**SEVENTH GRADE.**

Time, one year.

**LANGUAGE—**

McGuffey's Second Reader, first half; at least two exercises daily. In every reading exercise pupils must be questioned upon the subject matter of the lesson, and in regard to the meaning and use of words and phrases therein. Lead children to discover that there is a capital at the beginning of every sentence, and (generally) a period or a question mark at the close. Pay particular attention to spelling and defining and copying from the reader. Frequently give short exercises in writing from dictation.

Always correct indistinct or improper pronunciation and ungrammatical expression.

Continue the sentence-making recommended in the Eighth Grade. Indeed, this may be considered a general direction to all the grades. The signification of a word or expression is best learned from its proper use.

**WRITING—**

Payson, Dunton & Scribner's small copies, as directed by the Principal. One book each term.

Great care should be taken to teach how far the letters should extend on the spaces, and to have all written exercises as neat and clean as possible. Dictation or transcribing exercises which are dirty or carelessly written should be done over. Children may be said to commence to write in this grade. It is of the utmost importance, then, that they acquire no bad habits at the

start. "Well begun is half done." Follow the directions given in the books. Books must be examined and marked once a month by the Principal.

#### ARITHMETIC—

Exercises in addition, subtraction and tables with twenty counters. Pupils must be able to write numbers below 1,000; to add aloud rapidly columns whose sum shall not exceed 60; to perform with ease operations in multiplication and division, the multiplier or divisor not to exceed 6. Tables through 7's.

Teachers should give mental exercises daily, involving addition, subtraction, multiplication and division. Use concrete numbers, dollars, etc.

#### OBJECT AND OTHER CONVERSATION LESSONS—

The object lessons will be continued and enlarged as in the preceding grade. Pupils should be encouraged to ask questions in relation to common things in daily use, especially the ordinary tools and household utensils, such as the saw, ax, hammer, pots, pans, cups, pitchers, etc. As a matter of entertainment, the children should be permitted to go to the blackboard and attempt to draw some of the objects previously described. Reference book, Pestalozzi.

Use Wilson's Object Charts.

The study of geography should be commenced by developing the ideas of direction and distance. Some important building or other landmark well known to most of the children should be taken as a starting-point. Its direction from the school should be discovered and pointed. Then the children should be led to point its direction from their homes, etc. Here the teacher should calculate by the length of the blocks, which of these distances is about a mile, which about a half-mile, etc. The children should then be instructed to discover the directions in which the sun and moon rise and set; they should be led to name some street running in these directions, and thus to know the cardinal points. So much accomplished, the names, directions and approximate distances of places about the city should be introduced; for example, the public square nearest to the school, Telegraph Hill, Russian Hill, Twin Peaks, Lone Mountain, the Park, the Presidio, the Potrero, San Francisco Bay, Pacific Ocean, Hunter's Point, Golden Gate, Goat Island, Alcatraz, Angel Island, etc. Finally, these places should be located on a map of the city. The directions and distances might also be verified by means of the map.

Teach names of a few of the most common colors; also, to tell time by the clock.

#### MUSIC—

Ten minutes daily. Teach by rote at least six suitable new songs.

## DRAWING—

Bartholomew's New Edition, No. 2.

## PHYSICAL EXERCISES—

As in Eighth Grade.

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SIXTH GRADE.

Time, one year.

## LANGUAGE—

McGuffey's Second Reader. At least one exercise in reading, spelling and explanation daily, in each division of class. Pupils will be required to understand the information given in their lessons, and to properly use the words in original statements.

The teacher will continue and extend instruction in the use of capitals and punctuation marks. Have, almost daily, short exercises in composition descriptive of common objects, their uses, etc. These exercises should be written with long pencils on slates, for the most part; but teachers should be just as careful about the writing, spelling, etc., as if the work were done for public exhibition.

Correct *at once* all errors of speech, whether in grammar or pronunciation. Use Stickney's Language Lessons No. 1.

Writing from dictation frequently. Pupils may be allowed to correct one another's exercises under close supervision of the teacher.

## WRITING—

Payson, Dunton & Scribner's small books, as directed by the Principal; one each term.

Books must be sent to the Principal for examination once a month. In every case the Principal will mark the date of his examination on the last page of the work then performed.

## ARITHMETIC—

Simple rules, except long division. Pupils should read and write two periods with ease. Give mental exercise daily before written work. Have pupils perform exercises aloud in presence of the class or division. Attend particularly to rapid and accurate adding. Multipliers must not exceed two figures.

Review work of lower grades. United States money. Blackboard exercises daily. Complete multiplication tables. The teacher will follow and vary the book exercises in the simple rules. Have pupils find aliquot parts of quantities to sixths, both mentally and by slate and blackboard exercises.

## GEOGRAPHY—

Review and follow up the work suggested in the Seventh Grade, and introduce Coast Range, counties adjoining San Francisco, and prominent places therein. Introduce map; locate thereon places already known. Cross the bay and the Coast Range to the San Joaquin Valley and the Sierra Nevadas. Then, on the map of the world, cross the Pacific to Asia, touching upon important islands; speak of the inhabitants and their occupations. Cross the Mississippi Valley to the Alleghany Mountains. Speak of the directions. Go north and south along the mountain ranges, noting the great rivers. Take the different grand divisions similarly, always being careful to connect each lesson with the one preceding. In this way teach the outlines of the world—the grand divisions, with their mountain ranges and greatest rivers; the oceans, with their largest branches. Use the globe with the map in passing from one grand division to another. Speak of the United States as the country in which we live; of California as the State or division of the country in which we reside, and San Francisco as our city. Teach the children to draw the pointer around the United States on the map of North America; also along the boundaries of California. Have them find San Francisco on all the maps. Let the children mention some places which they have visited, or of which they have heard their parents speak. Help them to find these places upon the map. Always speak of the distances from San Francisco, how the people are employed, etc.

## OBJECT LESSONS—

Continue to cultivate the color sense. Use chart. Ask children to name certain colors and point to others. Let them draw lines a foot, two feet and a yard long. Have them guess distances between objects in the room, writing the number of feet privately on their slates. Measure and announce who come nearest to the true distance.

Continue the conversation lesson about objects; take up articles used for clothing—leather, woolen cloth, etc. Allow the children to offer subjects. Select such as are likely to be most interesting and not too difficult to explain. Use simple language. In arithmetic, introduce coin. Teach children how to buy and make change. Refer to Pestalozzi, Sheldon, etc.

Encourage the pupils to bring in, once a month, specimens of their handiwork made with their knives or needles, or such other tools as they can reach.

Use Wilson's Object Charts.

## MUSIC—

Six new rote songs. Practice on scale. Use chart No. 1. Time, ten minutes daily.

**DRAWING—**

Bartholomew's New Edition, book No. 3.

**PHYSICAL EXERCISES—**

At least three times a day.

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**FIFTH GRADE.**

Time, one year.

**LANGUAGE—**

McGuffey's Third Reader. At least one exercise of an hour each day. Spell and use any words in the book. Writing from dictation and phrase spelling, letter writing. Compositions about objects previously discussed. Abstracts of lessons, stories, etc. Review and extend direction for capitalizing and punctuation. Give close attention to the correction of mispronunciations and faulty expressions. Teach pupils that names are called nouns; that the words which describe the things named are called adjectives; and that the words which show what things do or are, are verbs.

Stickney's Language Lessons No. 2.

**WRITING—**

One book each term, as directed by the Principal.

Bartholomew's Drawing Book, New Edition, No. 5.

Exercises in blanks from No. 4 should be given in this and the preceding grade.

**ARITHMETIC—**

U. S. money, addition, subtraction, multiplication and division—no decimals in divisor or multiplier.

*Tables.*—Denominations of long measure, avoirdupois weight, liquid measure, and time, in common use. Find aliquot parts to twelfths, and express these fractions in terms of one another; thus, half of anything equals how many fourths, sixths, eighths, tenths, twelfths? A number of twelfths equals how many thirds, fourths, sixths, etc? Endeavor to make pupils quick and accurate in questions involving any of the simple rules. Give plenty of mental work and plenty of drill in addition.

Reference book for primary grades, Robinson's First Book in Arithmetic; but teachers should not limit themselves to any one book. In the primary grades especially, arithmetical exercises should always involve quantities or numbers of things. The concrete should always precede the abstract.



## GEOGRAPHY—

Review the map-work of the preceding grades. Again commence at home. Draw attention to what may be learned without the maps; that is, to what may be seen, such as the hills, capes, islands and bodies of water already mentioned. Have pupils examine the Coast Range and find Mounts Diablo and Tamalpais. Note how the bay seems to divide the range into two.

Take the Sierras; show that the Sacramento flows southerly and the San Joaquin almost northerly through the low country between the Coast Range and Sierras, named for this reason the Sacramento and San Joaquin Valleys. Show how the Coast Range and Sierras unite in the northern part of the State and run through Oregon and Washington Territory as the Cascade Mountains. On a map of North America, find where the Cascades unite with the Rockies. Take now the large rivers of the United States flowing from these mountains to the Pacific. In California the Sacramento and San Joaquin from the Sierras, and the Klamath and Salinas from the Coast Range; the Columbia and Colorado, the largest rivers of the Coast, from the Rockies. Tell how the people are employed in the regions through which the rivers flow.

Follow the Rocky Mountains. Take up the Fraser, the Missouri and Rio Grande. Say something of the region through which each flows. Return to San Francisco. Follow the line of the Central and Union Pacific Railroads to the Mississippi. Say something of the nature of the regions passed through, and of the employment of the people. Take the great rivers which flow into the Mississippi from the east and west. Give some idea of their great size, as compared with the Sacramento or San Joaquin, for example. Speak of the immense country through which the Mississippi flows; of the great benefit of these water-ways to the people of this region in making it easy for them to ship their goods to the markets of the world. Speak of the occupations of the people and of the things produced. Take the Alleghany Mountains, with their principal rivers—three or four—similarly. Rapidly review the foregoing, locating one city on each large river, three or four on the Pacific Coast, four to six on the Atlantic, and six to ten on the railroad [transcontinental], in the Mississippi Valley and about the great lakes. Cross the Atlantic from New York to London—from the largest city of the New World to the largest of the Old; the Thames; its size as compared with some of our rivers. Some of the large English cities. Why is England so rich? and why are her cities so large? Why do we speak the English language? etc. Take the Alps and Carpathians as a nucleus. Show that the large rivers generally flow north and south from the line of these mountains. A line drawn through the center of Europe from the Pyrenees to the Ural Mountains would separate nearly all the rivers which flow into the northern seas from those which flow into the southern. Take the Rhine and the Seine, the Danube and the Volga, with the countries through which they flow. Why are there no large rivers in Italy? Name some things which we

buy from the people of Europe. Notice peninsulas and principal islands. Take other grand divisions, according to their importance, like Europe. Teach pupils to draw on their slates or upon the blackboard an outline of California, locating thereon about a dozen of the principal cities and towns. Follow the coast, the rivers and the railroads.

**OBJECT LESSONS—**

Continue and extend the work of the preceding grades on form, measurement (judging distances), and colors.

Review and extend the lessons on common objects. Draw attention to useful animals and plants found in the warm, temperate, and cold regions of the earth. Interesting subjects outside of those mentioned in the reference book should be introduced. The great aim should be to make pupils better acquainted with nature and the arts.

Use Wilson's Object Charts.

**WRITING—**

Books as directed by Principal, one each term. The instruction in penmanship will be ranked by the results, not in the writing books and spelling blanks merely, but in every-day work.

**MUSIC—**

Mason's Second Reader. Practice on the scale and teach simple sounds. Teach eight or ten pretty new songs. Use second chart. Teach the one-part exercises in the first part of the reader. Time, ten minutes daily.

**DRAWING—**

New Edition, No. 5. Give plenty of practice in blank-books.

Physical exercises at least three times a day.

In all primary grades drawing and writing on the blackboard should be practiced extensively.

BANCROFT'S SPELLING BLANKS ARE RECOMMENDED FOR USE IN PRIMARY AND GRAMMAR GRADES.

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**FOURTH GRADE.**

Time, one year.

**LANGUAGE—**

First half of McGuffey's Fourth Reader, at least five exercises per week.

Writing from dictation at least two times a week.

Composition and letter-writing on plan for Fifth Grade.

Lead pupils to discover words, phrases and clauses which modify the signification of verbs. These words, phrases, etc., are adverbs. Review the Fifth Grade work in this respect, so that the pupils may readily select the nouns and verbs and their modifiers. Teach pupils to discover misplaced modifiers, and to put them where they should be. Lead to the great rule of English syntax: *Modifiers should be placed as near as possible to the words they modify.*

Frequently read or tell stories like *Æsop's Fables* to the class, and have individual pupils repeat them orally. Correct bad grammar, clumsy expression, improper pronunciation, indistinctness, etc.

Pupils of this grade should have a good knowledge of the use of capitals and of the period, question mark, quotation marks, and, less minutely, of the comma and apostrophe. Speak of words denoting possession as possessives, and not as nouns or pronouns in the possessive case.

Word-book, first year's work, to page 65.

General directions relating to the different studies will be found at the end of the course.

#### WRITING—

Books as selected by the Principal, one each term.

#### ARITHMETIC—

Give plenty of practice in addition, subtraction, multiplication and division, especially addition. Do not allow pupils to work by long division unless the divisor exceeds 12.

United States money; simple exercises involving the tables studied in the Fifth Grade; derive at blackboard the common denominations of square measure from those of long measure. Teach pupils to find the months and days between dates of the same year. Fractions—addition, subtraction, multiplication and division, denominators not to exceed 20. Change halves, fourths, tenths, etc., to hundredths.

Do not teach greatest common divisor and least common multiple. Examples should be such as arise in business transactions.

Robinson's Shorter Course, Part I.

#### GEOGRAPHY—

Take the world as in the Fifth Grade, but more minutely. The countries of each grand division, with a few of their principal productions and exports. The various modes of government. Some changes of government in the principal countries. Countries colonized by Europeans. Look for great cities chiefly on bodies of water. Trace the very greatest rivers from their sources to the sea, naming the countries through which they flow, and the greatest cities on their banks. Find how the largest cities of each grand division are situated. Find the boundaries of the principal countries of the

world. Find the distance from the equator, first in degrees and then in miles, of the northern and southern boundaries of the great countries of the world. Review the work of the lower grades. In the United States take the States and great cities of the Atlantic Coast and of the Gulf Coast; then the States and Territories of the Pacific. Except on the Pacific Coast, it will be sufficient to find the United States cities of over 100,000 inhabitants. Why are there no Territories on the Atlantic? Difference between a State and a Territory. Take the Lake States, the States between the Mississippi and the Alleghanies going south, between the Mississippi and the Rockies going north. How are the people occupied in the northern part of the United States? In the southern? Where, in the United States, is manufacturing brought to greatest perfection? What foreign countries have similar manufactures? Where are the great grazing regions of the United States? Describe the means of traveling from San Francisco to the principal cities, towns and places of summer resort (about twenty) in California; to Portland (Oregon), Olympia, Victoria, Sitka, Honolulu, Yokohama, Hongkong, New York, New Orleans, Melbourne, Paris, Cape Town.

Montieth's Elementary Geography. Wall maps.

#### OBJECT LESSONS—

In addition to work of preceding grades, take up imported articles used for food, beverage, medicine and luxury. Any household will furnish innumerable examples in the way of food and beverages, such as pineapples, bananas, oranges, tea, coffee, cocoa, sugar, rice, etc. The lessons on articles of commerce should be given in connection with geography. An effort should now be made to methodize the pupil's knowledge of common things. He should be led to generalize. He must see that all plants will not grow wherever they may be planted. He will find, for example, that most of the spices come from very warm countries—the torrid regions of the earth; that as we pass north and south to cooler regions, the vegetation is continually changing. Speak of typical plants and other products of the Torrid, Warm, Temperate and Cold regions.

Use Wilson's Object Charts.

#### PHYSIOLOGY—

Smith's Primer to be used as a supplementary reader—first six chapters.

#### DRAWING—

New Edition, book No. 6. Give plenty of practice in blank-books, from books of lower grades.

#### MUSIC—

Second Reader. Practice the prettiest songs already learned. Take also a few new songs. Give close attention to the exercises, especially in the

keys of C, G and F. When mistakes are made in songs learned by rote, have the music written on the blackboard, and let the class practice until they correct the errors. Time—five to ten minutes daily for songs; half an hour per week for note and scale exercises.

**PHYSICAL EXERCISES—**

Twice a day outside recess hours.

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**THIRD GRADE.**

Time, one year.

McGuffey's Fourth Reader. Five exercises of an hour each per week.

Dictation, spelling and defining, sentence-making, composition, letter-writing, etc., as in lower grades.

Stickney's Language Lessons No. 4.

Word-book, first half of second year's work, to page 119.

Review and enlarge the instruction upon nouns and verbs and their modifiers. Teach also that adjectives and adverbs have modifiers, and that these too are ranked as adverbs. Show that all words of the language may be classified as nouns, verbs, modifying and connecting words. Give the pupils plenty of practice in sentence-making, and embodying several statements in one sentence. At the same time be careful to warn pupils against making their sentences too long, especially by the frequent use of the word 'and.' Constantly draw their attention to the proper placing of modifiers. English construction is almost entirely a matter of position. *Place the modifier as near as possible to what it modifies.* Encourage the pupils to find sentences which may be improved under this rule.

Teach the subject and the object. The former acts, the latter is acted upon.

The pronoun, which is a substitute noun, enables us to avoid the frequent repetition of the same.

Show how nouns are changed in form by number, and the quality of possessing; adjectives and adverbs by comparison; pronouns by number and by manner of their use as subjects or objects, and verbs by tense. Take the principal parts of the irregular verbs. Draw attention to errors caused by using the past tense for the perfect participle, and *vice versa*; also, in using the present perfect for the past; as, "I have written the letter yesterday."

Review and increase the work of the lower grades in capitalization and punctuation.

## WRITING—

Books as directed by the Principal; one book each term.

## DECLAMATION—

See general directions.

## ARITHMETIC—

Pupils will be expected to perform, with ease and accuracy, operations in the simple rules, including decimals; also, to add mixed numbers containing simple fractions, such as halves, fourths, etc., without working out, on slate or paper, their reduction to equivalent fractions having a common denominator. In dividing or multiplying mixed numbers by whole numbers, the dividends and multiplicands must not be reduced to improper fractions.

Give constant practice in business calculations involving fractions.

Give a good deal of attention to division of decimals. (See instructions at the end of the course.)

In mental arithmetic, teach calculations by aliquot parts of a dollar, and, as a preparation for percentage, how to change ordinary fractions to hundredths. When it has been discovered that one-half equals fifty hundredths, explain that the latter is identical with fifty per cent.

Teach pupils to balance cash accounts, to make out in proper form, calculate and receipt market bills.

Take compound numbers in the tables already mentioned, and also in Surveyors' Measure, common denominations, Long and Square, Cubic measure, etc., omitting obsolete or seldom used tables. Text-book, Robinson's Shorter Course, Part I.

## GEOGRAPHY—

Take up the study of the grand divisions by their slopes or physical features. Discover by the courses of the rivers how the land slopes from the great mountain regions of the world. North America, for example, may be described as consisting of the Atlantic Slope, the Mississippi Valley, the Pacific Slope and the Arctic Slope. Which of these regions is the most populous? the wealthiest? the most fertile? the least populous? Why? Discover their natural boundaries. Find the principal animal, vegetable and mineral productions of each physical region. In what regions or countries are gold, silver, iron, copper, lead, tin, quicksilver and coal found? How is each chiefly used? Name a useful animal of each zone. Name some animals of land and water in each zone which are killed for the use of man. Review the plant classification suggested in the Fourth Grade course. Following plant life from the Equatorial to the Arctic regions, vegetable zones or belts might be classified as Equatorial, Tropical, Warm, Temperate and Cold. In which of these regions are spices, like cloves, nutmegs, etc., to be found? Mention some fruit, beverage or medicinal plant of the same region. Name some plants, fruits,

trees, etc., of the Tropical regions; some plants of the warm or Semi-tropical regions; of the Temperate and Cold regions. Which of these productions are most extensively used in commerce? What are the principal countries of these regions? Teach the boundaries of the Torrid, Temperate and Frigid Zones.

How might a similar succession of plants be encountered without passing from zone to zone?

Show that the direct rays of the sun cause the heat of the Torrid Zone, and the obliquity of the rays causes the diminishing heat of the Temperate and Frigid Zones. Teach that the thinness or rarity of the atmosphere causes the coldness in elevated regions.

Teach the pupils to find places on the map by their latitude and longitude.

Through what countries do the Equator, the Tropics and the Polar Circles run? Find the width in miles of each zone. Find the distance in miles between the places mentioned in the Fourth Grade course, by stretching a string between the locations on the globe and then measuring off the distance on the Equator or Graduated Meridian.

The descriptive and historical lessons should be taken up in the class as reading lessons. The teacher should question the pupils on the most important circumstances only, as it is desirable that the pupils should not attempt to remember non-essentials. Review the work of previous grades. Teach the mode of government, etc., of all the great countries of the world. Have the pupils draw outline maps of all the grand divisions and of the States and Territories of the Pacific Coast, by locating the mountain ranges, the principal rivers and boundary lines. After the first practice, the same work should be done from memory. Do not expect perfect form. The teacher should frequently try this memory drawing herself. She will thus learn how difficult it is.

In reviewing the geography of important countries, great care must be taken not to burden the pupil's memory with too many facts regarding each. Outside of North America, it will be sufficient to know the cities of over 250,000 inhabitants, excepting, of course, such as are specially noted. In the United States it will be sufficient to teach the capitals and other cities of over 50,000 population.

Text-book—Montieth's Elementary Geography.

#### OBJECT LESSONS—

The lessons on raw material, animal, vegetable and mineral, will be best studied in connection with geography; but information regarding manufactures should be obtained by both teacher and pupils. This information should, whenever possible, be first-hand; that is, be obtained from the factory, and not from the book. This work is not nearly so difficult as those who are too indifferent to try it will endeavor to prove it. A pupil living

near a tannery should surely be competent to make notes of the various processes in the manufacture of leather. One having access to a woolen mill could describe the steps from the shearing of the sheep to the turning out of the cloth ready for the tailor. Perhaps some one knows something about the manufacture of glass or nails, etc. Some one understands the preserving and canning of fruits, meats, etc. Some boy, probably, has friends in the country whom he often visits, and he may understand when wheat, barley, fruit trees, vines, etc., should be planted, and how. Indeed, if he has been taught to observe, he may know a great deal about the insect pests which attack plants, and how to overcome them. Pupils possess a great deal more information in relation to common things than teachers suppose, and it has the great advantage of being first hand.

Reference books—any in the school library or within the teacher's control which treat of popular industries.

Teach children how the National Congress and State Legislatures are made up; what difference there is between the laws enacted by the latter and the former; in what the duties of Governor of a State resemble those of the President of the United States; what is the use of the Supreme Court.

PHYSIOLOGY—

Smith's Primer; carefully review the Fourth Grade work and complete the book.

DRAWING—

Bartholomew's New Edition, book No. 7, first term; half of No. 14, second term. Use blackboard and blanks, and review the work of the lower grades.

MUSIC—

First half Mason's Third Reader; exercises in major scales only.

PHYSICAL EXERCISES—

Twice a day, not counting recesses.

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SECOND GRADE.

Time, one year.

LANGUAGE—

McGuffey's Fifth Reader, first half, three exercises of one hour each per week. Miscellaneous reading twice a week (from history, supplemental readers, Child's Book of Nature, Manual of American Ideas, Politics for the



Young, articles from newspapers and periodicals, etc.), questions on subject-matter, language, etc., as in the lower grades.

Stickney's Language Lessons, No. 1, large.

Complete Word-book.

Harvey's English Grammar, articles on letters—10, 11, 12, 13; on words—16, 18; on parts of speech, large print—22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 50, 51, 52, 56, 58, 59, 61, 62, 66, 70, 79, 81, 82, 83, 87, 92, 101, 102, 103, 104, 105, 106, 107, 109, 120, 121, 125, 127, 128, 129, 133, 135, 136 (pupils must construct original sentences containing the prepositions, but should not be required to commit the list to memory), 140, 142, 143, 147, 148.

The remarks, oral lessons and exercises should be carefully studied by the teacher. The best teachers always prepare their class-room work.

#### WRITING—

Payson, Dunton & Scribner's copy-books, as directed by the Principal. At least one book each term.

#### DECLAMATION—

See general directions.

#### ARITHMETIC—

Review the work of the lower grades. In compound numbers take all the important tables, including English, French and German money, finding longitude by difference in time, measuring both surfaces and solids (rectangular), including Board Measure, etc. Percentage in its ordinary applications—Interest, Discount (percentage off), Profit and Loss, etc. Teach signification of Dr. and Cr.

Text-book—Robinson's Shorter Course, Part I.

#### GEOGRAPHY—

Review the work of preceding grades. Study the grand divisions both physically and politically—by their natural features, plains, slopes, plateaus, peninsulas, islands, desert and fertile regions; and by their countries or political divisions. Study productions by their distribution from the equatorial to the polar regions, and by the countries in which they are most abundant. Show how the desire to interchange the productions of different climates and countries has created commerce; how commerce is carried on—over water by means of all sorts of sailing and steam vessels, over land by railroad, wagon and caravan. Explain how the demands of commerce have led to the development of Geography and Navigation.

Show that the water of the equatorial regions, heated by the direct rays of the sun, and changed in its quality by evaporation, is constantly flowing off in immense surface currents toward the poles, while the cold water of these regions is as constantly flowing in under-currents toward the equator. Explain how the diurnal motion of the earth causes the waters of the torrid

zone to flow westward, but with a constant tendency to turn off toward the poles. Show that currents of air—that is, the winds—of the same regions follow, pretty regularly, the courses of the water currents, and because of the regularity of their directions are called trade-winds. Have the pupils trace on the map or globe the directions of these winds and currents, and show how they would assist or retard vessels during certain voyages. Let the pupils measure the distance across the oceans and continents along the routes of travel most frequented. Have them ascertain the average daily rate of travel of ocean ships and steamers, and let them calculate from this the time generally occupied in sailing from San Francisco to the principal seaports of the world. Pupils should also be able to say what cargoes vessels would be most likely to take from any one of these ports to any other. Having discovered the length of time required to cross an ocean, the teacher should suggest that vessels must often be not only days but weeks out of sight of land. Why, in such cases, are vessels not lost? How are they enabled to go direct to their destinations without path or land-mark? Speak of the Polar Star and the mariner's compass; explain how latitude and longitude are found (roughly); review the work of finding locations by latitude and longitude, and lead pupils to discover how mariners shipwrecked in mid-ocean are enabled to determine the number of miles to the nearest land.

Speak of the regions of the earth in which most rain falls; of those in which the rainfall is little or nothing; of the effects of mountains upon rain-clouds; of regions made fertile by moisture carried by the trade-winds; of some region left barren because the trade-winds do not blow over it.

Have the pupils read the definitions and the historical and descriptive geography in the class. Examine them so closely upon the subject-matter that no important point can be overlooked; but do not require them to commit the words of the book to memory. They must make their own definitions. Their descriptions and relations must be their own language.

Give marked attention to the information relating to the Pacific Coast. Be careful to draw the attention of the pupils to those points (and only those) which are most likely to be of use to them after they embark in the business of life.

Text-book—Montieth's Comprehensive Geography.

#### HISTORY—

Barnes' Brief United States.

To the close of the War of 1812. Text-book to be used as a reader. The teacher will call the attention of the pupils to the most important points.

See general directions.

#### PHYSIOLOGY—

Steele's Hygienic Abridged, as a supplementary reader; first six chapters and sections 1, 2, 3, 4 of chapter 10. Set no tasks.

**OBJECT LESSONS—**

Review and extend the work of the preceding grades in relation to commercial productions—mineral, vegetable, and animal. Go more minutely (in connection with physical geography) into the causes of variety of climate and the effects of climate upon the distribution of plants.

Continue to collect information from pupils relative to common things in art and manufacture.

Have the pupils discover by experiment the advantages of the Lever, the Wheel and Axle, the Siphon. Show, with a piece of hose, that water will flow up hill in a closed tube, if the source of supply is higher than the hill. By means of a piece of glass tube, show how water will rise when the air pressure is removed from a portion of its surface. From this explain the principle of the common pump. Let the pupils discover instances of machines in which motion in straight lines is changed to circular motion. Hold the attention of the scholars to the commonest mechanical devices. Every description given by a pupil should be clearly understandable by the class. Encourage your scholars to try experiments, and to construct little boxes, wheels, wagons, parts of the machines mentioned, etc.

Continue the conversations upon the duties of citizens and the forms of government—city, state, and national.

**MORALS—**

Levenson's Primer, as a supplementary reader, first five chapters.

**DRAWING—**

Bartholomew's New Edition.

Half of No. 14, 1st term.

Book No. 8, 2d term.

See general directions.

**MUSIC—**

Mason's Third Reader. Teach pupils to sing by syllable in all the major keys. Give plenty of drill in the various intervals of the scales. Be particular about accent and time.

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**FIRST GRADE.**

Time, one year.

**LANGUAGE**

McGuffey's Fifth Reader, two exercises of an hour each, each week. Miscellaneous reading three times a week from history, educational periodi-

cals, works on government and the duties of citizens, and such library books as will tend to better prepare for the duties and difficulties of self-sustenance.

Stickney's Language Lessons, No. 2, large.

*Word-Book.*—To be studied chiefly by reviews. Give close attention to the simple matters in which mistakes are most common; also to lessons on derivation, and whatever will give much information in small compass.

*Harvey's English Grammar.*—Review the work of the second grade, drawing the attention of the pupils to whatever you consider of value in the notes. Remember the standard: *that is of value which will correct or prevent an error in the use of language.* Give so much attention to the analysis of sentences as will enable the pupils to discover the modifiers of the subject and predicate, or of other words, and to determine what improvements, if any, can be made in placing them.

Have pupils study the article on punctuation, pages 238 to 255. Do not require them to commit the rules to memory, but lead them to make general rules for the use of each punctuation mark; such as, commas are used where "and" or some other connecting word is omitted, as in the following: "Adjective, participial, appositive, and absolute phrases and clauses should be separated from the context by commas." They are also used to separate explanatory words, phrases, and clauses from the context.

Teachers and pupils are earnestly requested to give their best attention to such portions of the chapters on syntax (pages 136 to 230) as treat of the proper construction of sentences, and they are just as earnestly requested to pass whatever will not teach the student "to speak and write the English language correctly."

#### WRITING—

Payson, Dunton & Scribner's copy-books, as directed by the Principal, at least one during the year.

#### DECLAMATION—

Pupils should be required to declaim the whole or a large portion of the Declaration of Independence.

See general directions.

#### ARITHMETIC—

Robinson's Shorter Course, Part II.

Percentage, Decimals, and Common Fractions, in all their business applications. Teach forms of notes, receipts, and orders; mensuration of common surfaces and solids; gauging ordinary casks; changing meters to yards. Constantly review the work of the lower grades. Give daily practice in the Simple Rules, especially Addition, the object being to make the pupils quick and accurate accountants.

**GEOGRAPHY—**

Monteith's Comprehensive, Commercial and Physical. Review work of lower grades, especially third and second. Take up commercial exchanges, exports and imports, by zones, by physical regions, and by great commercial countries.

Have the pupils (those who can draw best) make skeleton maps of the world on the blackboards, showing the principal productions—mineral, vegetable and animal—of the different zones.

Have other pupils make alphabetical lists of the principal countries, with their exports. Cause others to make similar lists of the principal productions of commerce, with the countries in which they are produced in greatest quantity.

Take up the physical geography of the sea. The tides; how often they take place; how they are caused; their connection with navigation. The great ocean currents; how caused; their courses; their connection with navigation; their fertilizing qualities. The trade-winds; their connection with navigation; their use as moisture-bearers. The fertile regions of the earth; why fertile. The desert regions; why barren. Navigation; the courses sailed; the distances between noted seaports; the cargoes likely to be taken each way.

Historical and descriptive geography, as in previous grades.

Principal countries; their area and population; their latitude; their greatest mountains, rivers, lakes, seas, islands, cities; their government, industries, civilization.

Have pupils draw maps of Pacific States and Territories, marking thereon the principal places, the productions, the general direction of the wind and of the current off the coast, and the regions of greatest and least rainfall.

**HISTORY—**

Barnes' Brief U. S. completed.

Use book as reader. Give more attention to the causes which led to the various wars than to the battles fought, the numbers engaged, or the heroism displayed. Be sure to impress upon your pupils the changes in civil government and policy produced by each war. The causes of war and revolution and their results are the great lessons of history.

**PHYSIOLOGY—**

Steele's Hygienic Abridged, to be used as a supplemental reader. Review the Second Grade work and complete the book. In preceding grades, as well as in this, lay particular stress on hygiene and the evil effects of stimulants and narcotics.

**OBJECT LESSONS—**

Continue the work of the preceding grades. Extend the instruction on government and upon the rights and duties of citizens.

**PHYSICS—**

Rolfe & Gillet's First Book in Philosophy.

Energy and Machines; States of Matter; Heat; Electricity.

Have the pupils perform the experiments whenever possible.

**MORALS—**

Levenson's Primer completed. Review Second Grade work.

**DRAWING—**

Bartholomew's New Edition, books 9 and 15.

**MUSIC—**

Chromatic and minor scales; theory of transposition of scales. Singing by syllables in the keys in general use. Introduce by music national airs and simple operatic selections. Music, ten minutes daily. Text-book, where classes are not already supplied with the Fourth Reader, Mason's Independent Reader.

See general directions.

**PHYSICAL EXERCISES—**

Twice a day, in the class-room.

**HOUSE-KEEPING—**

Domestic Economy, Parts I and II, for classes containing girls. If the teacher sees fit, the entire book may be gone through as a supplemental reader.

**WORD ANALYSIS—**

Swinton's.—Prefixes and Suffixes. Pupils will be required to find roots of ordinary words occurring in their reading lessons, as directed by the teacher.

BANCROFT'S SPELLING BLANKS ARE RECOMMENDED FOR USE IN PRIMARY AND GRAMMAR GRADES.

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## BOYS' HIGH SCHOOL.

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### GENERAL SCHEME.

Time for full course—three years.

The students of the first year and those who fail of promotion at the close of the first year, shall constitute the Junior Division of the school; students promoted from the Junior Division shall constitute the Middle Division;

and students promoted from the Middle Division shall form the Senior Division. Applicants coming from outside the Department shall be classified according to their attainments.

The regular time for accomplishing the work of any division is one year; but students who are unfit for promotion at the close of the year will be permitted to remain a second year in the same division.

Every assistant teacher, except the instructor in Natural Science, must take charge of a class.

Every teacher must give instruction to his class in all the subjects named in the course therefor, except Natural Science.

The teacher of the Natural Sciences shall devote his entire time to subjects under this head.

The custom heretofore existing of requiring students to exchange rooms at every change of lessons is hereby abolished, and, as a general rule, students shall not be required to leave their regular class-rooms except to attend the lessons of the teacher of Science, or to receive special instruction from the Principal.

No class shall be organized with fewer than forty-five pupils, and any class in which the attendance falls to twenty-five shall, if practicable, be consolidated.

A special class, to be known as the University Class, shall be made up of such pupils of the three divisions as intend to take the Classical Course at the University of California. Latin, French and Greek will here take the place of Arithmetic, Industrial Drawing and Geography.

#### SUBJECTS.

The subjects taught in this school shall be: English Language, Mathematics, Natural Science, History, Industrial Drawing and Handicraft, Geography and Physiology.

Under the head of English Language is included Reading and Explanation of Subject, Elocution, Declamation, Penmanship, Word Analysis and Composition; Mathematics includes Arithmetic, Algebra, Geometry, Plane Trigonometry and Mensuration; Natural Science comprises Physics and Chemistry; History is subdivided into United States, Modern, Mediæval and Ancient; Geography into Commercial and Physical, and Political or Historical.

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## BOYS' HIGH SCHOOL.

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### JUNIOR DIVISION.

#### ENGLISH—

Swett's Elocution, Macaulay's Selected Essays, American Poems and Barnes' United States History, to be used as readers. The Principal is also authorized to select one other work.

Give much more attention to the study of prose than of poetry. Prose is

the necessity; poetry the accomplishment. Have frequent short exercises in writing from dictation.

Short compositions, including letters and exclusive of historical essays, at least twice a month.

#### ARITHMETIC—

Commercial Arithmetic, that is, exercises such as arise in business, involving the Simple Rules, Fractions, Decimals and Percentage.

No text-book required.

#### ALGEBRA—

Through Simple Equations, including the simple rules, factoring, fractions. Give especial attention to the proof of general principles which apply to Arithmetic, such as:

1. If the terms of a fraction be either both multiplied or both divided by the same quantity, the fraction so obtained is equal to the original one.

2. To multiply a fraction by a quantity, either multiply its numerator or divide its denominator by that quantity.

3. If a quantity be a measure or common divisor of two others, it is a measure of their sum and difference, and it is also a measure of either of them multiplied by any quantity.

4. To find the product of two or more fractions, find the product of their numerators for the numerator of the answer, and the product of the denominators for its denominator.

5. To divide one fraction by another, multiply the dividend by the reciprocal of the divisor.

Text-book, Wentworth's Algebra.

#### GEOMETRY—

The first, second and third books of Euclid, with exercises and applications.

Text-books, Todhunter's Euclid; Mensuration of Surfaces.

#### PHYSICS—

Gillet & Rolfe's First Book.

Two lessons per week as directed by teacher of Natural Science.

#### CHEMISTRY—

One lesson per week. Text-book, Avery's Chemistry.

#### HISTORY—

Barnes' United States. Book to be used once a week as a reader. The teacher will examine casually on the subject matter, drawing the attention of the students to changes in mode of government and their causes. Pupils will be required to prepare essays on:



(1) The Colonial Period, giving particular attention to the different forms of government and the changes therein; also, to the social condition of the various colonies as shown by their art and industries.

(2) The Revolutionary Period, the causes and results of the Revolution, especially the civil changes. The Declaration of Independence, the Articles of Confederation, the Constitution and plan of the government, with the powers and duties of its various branches.

(3) The Constitutional Period, which may be subdivided into the epochs of the War of 1812, of the Mexican War and of the Civil War.

Encourage the pupils to obtain reliable information from encyclopedias and other sources, and yet to condense it so that they may take away with them a clear mental picture of the birth, life and progress of their country.

Discourage the memorizing of unimportant dates, names and numbers, so that the useful knowledge may last.

#### GEOGRAPHY—

Review important points in the work of the Third, Second and First Grades.

Combine Geography with History, so as to convey at least an elementary knowledge of the customs, forms of government and political development of our own country and others directly connected with it by history and commerce.

Continue and extend the Commercial and Physical Geography of the Grammar Schools.

One lesson per week through all the divisions.

#### INDUSTRIAL DRAWING—

Construction, with instruments, of figures of plane geometry, to alternate with free-hand copying of architectural ornaments and designs, for the purpose of teaching the styles of different nations and times.

Geometrical solids, their sections and developments, and manufactured objects illustrating geometrical forms; also, ornaments in relief, and natural objects having geometrical features and illustrating principles of design, that is, model and object drawing. The free-hand drawing of objects should be varied by perspective drawing with instruments.

A small workshop should be erected in the school-yard, wherein students might practically learn the use of tools by constructing models and preparing the apparatus for experiments in Physics and Chemistry. Whenever possible, the work of this shop should be done in accordance with plans to be designed, drawn and interpreted by the pupils.

## MIDDLE DIVISION.

## ENGLISH—

Hackett and Girvin's Pure English.

Macaulay's Selected Essays.

Swett's Elocution.

One or two plays of Shakespeare.

Barnes' General History, and one other work to be selected by the Principal.

## ARITHMETIC—

Review and extend the work of the Junior Division, and make the calculations suitable for the work in Physics gone through by the Junior Division; for example, in Momentum, Falling Bodies, the Mechanical Powers, the Hydraulic Press, Specific Gravity, etc.

## ALGEBRA—

Through quadratics. Follow the methods and work the problems, but do not detain the pupils upon theories and generalizations which are not likely to become practically valuable to them.

## GEOMETRY—

Fourth book of Euclid. Wentworth's Geometry, Books I, II, III, IV, V. Mensuration of Solids. Surveying with the chain.

## PHYSICS—

Two lessons per week.

Gillet and Rolfe's Natural Philosophy.

## CHEMISTRY—

One lesson per week.

## HISTORY—

Barnes' General; the 16th, 17th, 18th and 19th centuries. Book to be used as in the Junior Division. Students will be required to write an essay under the eye of the teacher upon the principal events of each century.

## GEOGRAPHY—

The chief productions, manufactures, exports and imports of the principal countries of the world; the race or races by which each is inhabited; the mode of government, principal religion and general condition as regards civilization; the boundaries, area, population, climate and fertility of each.

*Physical*—Measurement of the earth; extent of view according to eleva-

tion of eye; motions of the earth; day and night; the seasons; climate and temperature according to latitude, to altitude or location; trade-winds; ocean currents.

#### INDUSTRIAL DRAWING—

Architectural drawing (the orders). The principles of projection, including penetrations and intersections of geometrical solids; exercises in the delineation of simple bodies in projection; measuring and reduction of models of bodies; reading working plans of buildings and machines; principles of shades and shadows; rudiments of machine drawing.

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### SENIOR DIVISION.

#### ENGLISH—

Burke's Select Works, vol. I. Swett's Elocution. One or two plays of Shakespeare. The histories of Rome and Greece. One work to be selected by the Principal.

#### ARITHMETIC—

Review Commercial Arithmetic. Continue calculations in Physics and Strength of Materials.

#### ALGEBRA—

Review most important points during second term.

#### GEOMETRY—

Books V and VI of Euclid; Plane Trigonometry, or Solid Geometry; Surveying with Theodolite.

#### PHYSICS—

One lesson per week.

Gillet and Rolfe's Natural Philosophy.

#### CHEMISTRY—

As applied to the arts. Three lessons per week.

#### HISTORY—

Barnes' General History, Mediæval and Ancient. Give special attention to the causes of the rise and fall of nations. Compare the Grecian and Roman Republics with our own, showing the causes of their fall and how we may avert a like catastrophe.

**GEOGRAPHY—**

Extend instruction in Physical Geography.

The Earth as a planet; its place in the solar system. Forms of the Continents, Continental Drainage, Properties of the Atmosphere, Storms, Moisture of the Air, Circulation of the Air, Snow, Glaciers.

Range of Plants and Animals. The Laws of Kepler. Some of the principal Constellations, etc.

**INDUSTRIAL DRAWING—**

Projection of bodies according to various positions by the application of Geometrical rules. Projection of bodies with curvilinear surfaces. Making Working Plans of Buildings, Bridges, Machinery, etc.

**CIVIL GOVERNMENT—**

Two recitations.

**PHYSIOLOGY—**

Steele's Hygiene.

**PENMANSHIP—**

Payson, Dunton & Scribner's copy-book in all the classes as directed by the Principal.

The aim of the teacher must be to lead the pupil, by close supervision and constant practice, to write rapidly and legibly, if not with elegance. The copy will merely teach proper construction and correct proportions. The greatest improvements will come through the written exercises—compositions, etc.—if the teacher is sufficiently exacting. All exercises showing signs of carelessness should be re-written.

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**UNIVERSITY CLASS.**


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**JUNIOR SECTION.**

Junior Section.

English Language.

Science, as in English Junior Class.

Mathematics. \*

U. S. History, as in English Junior Class.

Latin.

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**MIDDLE SECTION.**

English Language.

Rhetoric.

Mathematics.  
 History, Roman.  
 Science, as in English Middle Class.  
     or,  
 Greek.  
 Latin.

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## SENIOR SECTION.

English Language.  
 Rhetoric.  
 Mathematics.  
 History.  
 Greek.  
 Science, as in English Senior Class,  
     or,  
 Greek.  
 Latin.  
 French (optional).  
 Regular exercises in Declamation and Composition for the whole class.

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## TEXT-BOOKS USED IN THE UNIVERSITY CLASS.

Tom Brown's School Days at Rugby.  
 Scott's Lady of the Lake.  
 Irving's Alhambra.  
 Thackeray's Newcomes.  
 Shakespeare's Merchant of Venice.  
 Shakespeare's Julius Cæsar.  
 Kellogg's Rhetoric.  
 Blackburn's Latin Grammar and Exercises.  
 Allen & Greenough's Cæsar.  
 Allen & Greenough's Cicero.  
 Greenough's Virgil.  
 Jones' Latin Composition.  
 White's Greek Lessons.  
 Goodwin's Greek Grammar.  
 Goodwin's Greek Reader.  
 Jones' Greek Composition.  
 Wentworth's Algebra.  
 Wentworth's Geometry.

Todhunter's Euclid.  
Barnes' United States History.  
Smith's Smaller History of Greece.  
Smith's Smaller History of Rome.  
Text-books in Science, same as in English Course.

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## GIRLS' HIGH AND NORMAL SCHOOL.

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### JUNIOR CLASS—FIRST YEAR.

#### I. LANGUAGE—

1. English Grammar, Rhetoric and Composition.
2. Latin Course—Allen and Greenough's Latin Method—Cæsar begun.
3. English Course—Word Analysis and School Elocution as an offset for Latin.

#### II. MATHEMATICS—

Algebra. As an offset, pupils may pursue arithmetic, provided there shall be a sufficient number to form a class.

#### III. HISTORY OF THE UNITED STATES—

#### IV. READING—

School Elocution at least three lessons a week. For supplementary reading, Scott's "Lady of the Lake," and selections from American authors.

#### V. NATURAL SCIENCE—

Physiology and Hygiene from July to February.  
Botany from February to June.

#### VI. MISCELLANEOUS—

1. Morals and Manners—one lesson a week.
2. Music—one hour a week.
3. Calisthenics—ten minutes daily.
4. The reading of compositions at least one hour a week. Each class to be divided into four sections, one section to read each week. Pupils to select their own subjects and prepare their compositions at home. This composition work is designed as a supplement to the drill work in Rhetoric and Grammar.
5. Domestic Economy, two lessons a week.

## MIDDLE CLASS—SECOND YEAR.

## I. LANGUAGE—

1. Rhetoric, Grammar and Composition.
2. Latin Course—Cæsar, Books I, II, III and IV. Virgil, Books I and II. Latin Composition—Part II of Allen and Greenough's Latin Method.
3. English Course, as an offset for Latin—Word Analysis and School Elocution.

## II. MATHEMATICS—

Algebra completed. As an offset, pupils may pursue Physical Geography.

## III. NATURAL SCIENCE—

Physics from July to February.  
Botany from February to June.

## IV. HISTORY—

English history from 1500 to date.

## V. READING—

School Elocution, three hours a week.

## LITERATURE—

Swinton's Studies in English Literature.

Authors taken up: Shakespeare's "Merchant of Venice," Dickens' "Christmas Carol," Longfellow's "Keramos," Whittier, Lowell, Burns, Irving, Scott, Byron, Bryant—supplementary readings from preceding authors.

## GENERAL EXERCISES—

1. Morals and Manners—one lesson a week.
2. Music—one hour a week.
3. Calisthenics—twenty minutes daily.
4. Composition-reading, as in the Junior Class.
5. Domestic Economy—at least one hour a week.

## SENIOR CLASS—THIRD YEAR.

## I. LANGUAGE—

1. Rhetoric, Grammar and Composition.
2. Latin Course—Virgil, Books III, IV, V; Eclogues; Cicero, six orations; Latin Composition.

3. English Course, as an offset for Latin—first half-year, Chemistry, Zoölogy, or Physics, elective; second half-year, Astronomy.

## II. MATHEMATICS—

Geometry, or, as an elective offset, Higher Arithmetic and Mental Philosophy.

## III. LITERATURE—

Shakespeare's "Julius Cæsar," Milton, Dryden, Pope, Gray, Tennyson, Goldsmith, Emerson, Hawthorne, Webster, Wordsworth, Holmes, Swinton's Studies, with supplementary readings.

## IV. MISCELLANEOUS—

1. School Elocution—three hours a week.
2. Morals and Manners—one lesson a week.
3. Vocal Music—one hour a week.
4. School Calisthenics—twenty minutes daily.
5. Composition—reading as in the Junior and Middle Classes.
6. Domestic Economy—one lesson a week.
7. Political Economy—two lessons a week.
8. Greek and Roman History.

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## NORMAL CLASS—FIRST YEAR.

1. Physical and Political Geography—thorough study and review of Arithmetic, Bookkeeping, Word Analysis and History of the United States, all with special reference to Methods of Teaching.
2. Methods of Teaching—Swett's Methods of Teaching.
3. Practice of Teaching—one-half the time in the public schools.
4. Object Teaching and Kindergarten Exercises.

## SECOND YEAR.

- I. Algebra, Grammar, Physics, Zoölogy.
- II. Psychology—as applied to teaching.
- III. Practice—one-half the time.
- IV. Domestic Economy.



## AUTHORIZED TEXT-BOOKS.

## TEXT-BOOKS:

Domestic Economy.  
Swinton's Outlines of History.  
Swinton's New Grammar and Composition.  
Franklin Arithmetic.  
Loomis's Algebra.  
Hutchinson's Physiology;  
Normal Word-Book.  
Rattan's California Flora.  
Hackett and Girvan's Pure English.  
Swett's School Elocution.  
Swinton's Studies in English Literature.  
Wentworth's Geometry.  
Sharpless and Philip's Astronomy.  
Philosophy.  
Swett's Methods of Teaching (Normal Class).  
Swinton's Geography (Normal Class).

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## COMMERCIAL SCHOOL.

## I. ARITHMETIC—

Exercise in the four fundamental operations, especially addition. Fractions, common and decimal. Denominate numbers. Percentage and its applications. Interest in all varieties and methods. Equation of Accounts and Accounts Current. Stocks and Bonds. Duties. Partnership. Banking. Particular attention given to abbreviated methods.

## MENTAL ARITHMETIC—

Short methods of Multiplication and Division, to promote rapidity and accuracy in calculations for the general market. Simple exercises in Percentage and Interest, and Discount and Exchange.

## II. CORRESPONDENCE—

Continual practice in writing business letters.

## III. ENGLISH LANGUAGE—

Constantly enforce correct forms of expression. Composition once a week.

## IV. GEOGRAPHY, PHYSICAL AND COMMERCIAL—

The chief productions, manufactures, exports and imports of the principal

countries of the world; their general condition as regards civilization; the boundaries, area, population, climate and fertility of each; trade-winds and ocean currents; their effect on navigation.

#### V. ELEMENTARY PHYSICS—

Investigation of the Laws of Motion and Composition of Forces. Work and Energy. Mechanical Powers, and their application to *familiar machines*. The Pendulum. Effects of Heat, and its Distribution. Relation between Heat and Work. Lenses and Optical Instruments.

Electricity, [source and application, as in Telegraphy, Illumination and the Transmission of Power. Atmosphere—movements, fog, clouds, rain, storms. The three great circulations of the globe.

#### WORD ANALYSIS—

Definitions of words of Anglo-Saxon, Latin and Greek origin most commonly used in business and social life.

#### PENMANSHIP—

Such training for a plain business hand as will promote the utmost rapidity consistent with legibility and uniformity.

#### BOOK-KEEPING—

A complete analysis of accounts in every department of business, involving simple and clear methods for the entire systems of Single and Double Entry. Practical instruction through the medium of Merchandise, and Banking, Express and other departments, fitted up with appropriate offices. A general business to be transacted with the exactitude and care observed in real life.

#### COMMERCIAL LAW—

Thorough information on matters appertaining to negotiable paper. Lectures and questioning (at least once a week) on subjects of importance relating to Contracts.

Agency, Partnership, Corporations, Sale of Goods, etc.

#### TEXT-BOOKS—

Rogers and Williams' Book-keeping.

Packard's Commercial Arithmetic.

Hackett and Girvan's Pure English.

Swett's Normal Word-Book.

Gillet and Rolfe's First-Book in Philosophy.

Clark's Commercial Law.

## GENERAL DIRECTIONS.

Do not compel your pupils to commence the study of any subject or lesson by committing to memory rules or definitions. When a person understands an operation or subject thoroughly, he can make his own rules and definitions, if necessary. Definitions and rules are generalizations of knowledge acquired by experience. Committing them to memory will no more furnish the knowledge from which they were obtained than it will the experience which produced the knowledge. But while definitions, being conclusions, should not be placed before the studies from which they are deduced, *the object to be attained* in becoming conversant with the laws and facts of any branch of knowledge should be held before the student from the outset. While, therefore, I would not have a pupil commence the study of Arithmetic by learning that "Arithmetic is the Science of numbers and the art of computation;" or of Grammar by committing to memory the assertion that "Grammar is the art of speaking and writing with propriety;" or of Geography with the definition, "Geography is a description of the earth; it comprises Physical, Political and Astronomical Geography"—I would have pupils understand that our great object in studying Arithmetic is to learn by practice to make the calculations of business life with ease, accuracy and rapidity; that the great end to be attained by the study of Grammar is that we may be enabled to express our thoughts correctly—that is, in compliance with the laws of our language, and so as to be clearly understood; and that the chief use of Geography is to spread commercial knowledge. I would say, then, to all teachers: *Never lose sight of the use to be made of the knowledge acquired, that is, of the object of the study; and never allow your pupils to lose sight of it.* When you teach something which does not lead up to the object intended, you waste time and energy; you are doing too much and yet idling. When, at the proper time, you neglect to introduce, or through want of thoughtful preparation, fail to observe, anything essential to the end to be attained, you do too little, and, *if you have ability*, may fairly be charged with unfaithfulness.

In considering how best to convey knowledge to the individual, it may be well to reflect how slowly and painfully knowledge has come to the world. Take, for example, the simple fact for which any First Grade pupil can furnish the proofs—the world is round. Just think of the countless centuries which elapsed before that fact was admitted; and think of the great minds that flourished during those centuries—the mathematicians and philosophers of Greece, the astronomers of Egypt and Chaldea, and the navigators of Phœnicia. The proofs, too, were in plain view then as now. Eclipses had been observed so carefully as to be prophesied, and yet no one seemed to think that the circular shadow on the moon was cast by the earth, and that only globular bodies could constantly cast such shadows. Day and night,

with the intervening twilight, constantly recurred, but no one seemed to consider these phenomena incompatible with the idea that the earth was a vast plain. Every one saw that the large part of a vessel going out to sea was the first to disappear, and yet no one seemed to reflect that this could not be so if the water were flat. Still, no doubt, the idea of the earth's sphericity existed; but it was a fugitive idea. Its possessors were ashamed or afraid to bring it to the light, for they knew if they did so that those who never take the trouble to think, but who are always prepared with adverse criticism, would either ridicule or persecute them for their pains. Grand and rapid advances in human knowledge can take place only when the ordinary people are prepared to receive great new ideas. The man who works for a livelihood must be more than a theorist. His idea of a theory is that if it is good for anything it should be utilized, and hence his habits of life lead him to test hypotheses by experiment. It is not so wonderful, then, that it was only when this suspicion of the earth's rotundity entered the mind of one of the common people the first practical test of its truthfulness should be made. The great men before Columbus, who are said to have taught or thought that the world is a sphere, were not, like him, workers. Theory and authority satisfied them. They cared nothing for practice and experiment. Columbus had the true scientific habit. He would not rest satisfied until he had proved by experiment the truth of his belief. If the earth was round, why could he not sail around it? He did not circumnavigate the globe, but he gave to the world *the* grand lesson in the connection of theory and practice, and his teaching bore a thousand-fold more fruit within thirty years than the theories of all the sages had borne during thirty centuries. Within thirty years the earth *was* circumnavigated, and the Indies *were* reached by the method of Columbus.

If we examine the histories of the development of other sciences, they will all furnish examples, like the foregoing, of the slowness of conviction; and we will find that the very least progress was made when theory, assertion and authority ruled the teachers.

Theories contain the seeds of knowledge; but, as for the seeds of plants, the ground must be prepared to receive them, or they will not take root and grow to maturity. Even when they do, the teacher, like the gardener, must be careful, because some ideas, like weeds, are either directly poisonous or dwarf and exclude fruit-bearing knowledge.

Assertion is nothing until proved.

Authority is often like some kinds of granite—very strong, apparently infrangible, while allowed to lie under the mold of ages, but sure to fall to pieces when exposed to the frost of criticism and the sunlight of experiment.

Be patient, then, with your young charges. Faith in their teachers may lead some pupils to believe without proofs; but those who long for reasons are better prepared to learn. Telling is not teaching. People cannot be forced to believe. The pupil who will not say he understands until he does is not to be frowned down or pushed aside. He should be led to understand

by patient reasoning and experiment, and this plan will be found, in the long run, to bring about good results most rapidly.

#### MORALS AND MANNERS—

Every falsehood, equivocation and exaggeration; every act of rudeness or unfairness; every case of disobedience and ill-temper; every appearance of a disposition to regard the teacher as a tyrant or an enemy—should be made the text for a lesson in morals and manners. The teacher is judge, jury and sheriff. He must, therefore, be absolutely just to his pupils. He has a right to show a righteous indignation for the wrong-doing, and to take a corresponding pleasure in the right-doing, of his pupils; but he has no right to grant special favors to the children of friends or relatives, or to those of the wealthy and influential.

The welfare of the pupil must be ever before the teacher's mind. If a child is punished, it must be to make him better; if one is treated with severity and another with kindness, it must be because these are the best means of correction in each case. Nothing should be done merely because of the disposition or indisposition of the teacher; everything should be done for the ultimate welfare of the child.

The child's morals and school conduct are, to a very great extent, built upon those of the teacher. His *treatment* of the pupil must teach that great rule of fairness: "Do as you would wish to be done by." In his dealings with his pupils, the teacher must be entirely HONORABLE, JUST and TRUTHFUL. When he is, and then only, he can teach most of his pupils that they should be so too. No teacher can play hypocrite with his students. If he is as good as he seems to be, they will know it and respect him; they will fear wrong-doing because it is wrong, and because he may discover it. If the teacher is not what he pretends to be, the pupils will discover that too, and in their turn they will rely upon hypocrisy and falsehood to tide them over their troubles, condoning their offenses with the reflection that they are no worse than those of the teacher. I am happy to bear testimony that there are very few teachers whose example does not inculcate goodness. Indeed, sincerity and fair-dealing are so generally characteristic of teachers that I am convinced the practice of our profession is, in a high degree, incentive to justice and morality. There is, however, one great fault to which many teachers, otherwise unimpeachable, are addicted, and that is, *the habit of threatening and promising, and failing to carry out the threats and fulfill the promises.* The teacher who does this will surely lose the respect of his pupils and his power to control them. The mischievous children will say to themselves, and perhaps to their comrades: "O, he threatened worse than that before, and he did nothing. We have just as good a chance to escape now." I *know* that this practice causes most teachers, and especially principals, nearly all the trouble they encounter in endeavoring to maintain proper discipline. Children have not as much judgment as adults, and hence make very little allowance for the foibles of their superiors. They

simply consider persons who break their words, whether in threat or promise, untruthful. I would say, therefore, in the words of an old friend: "Never threaten to throw a child out of the window when he shall repeat some offense, because if he does, *you must throw him out.*"

Interesting occupation is among the very best means of maintaining, not only order, but morality. The recreations of the play-ground are to be classed among the interesting occupations, and they demand supervision fully as much as the exercises of the class-room. Where this supervision is neglected, the teacher in charge is incompetent to guard the moral welfare of his pupils.

Some teachers seem to think that the parents should be held entirely responsible for the moral training of the children; others, that morality can be inculcated only in connection with sectarian teaching, and for these reasons they consider that is not their duty to spend time upon instruction in morals and manners. This is a great mistake. The teacher is strictly forbidden to say anything calculated to offend the religious sensibilities of any pupils; but he is as strictly enjoined to teach the morality of good citizenship. There is no better place than the school, and no better time than the school age, in which to teach the necessity for honesty, even-handed justice and truth, for obedience to law and protection by the law. Every school represents society in miniature. Every pupil should there learn that he must conduct himself in agreement with the best interests of the community.

Teachers should never forget that education without honesty, truth and a proper regard for the feelings and opinions of others, is more than wasted. It is an instrument of evil.

#### HEALTH—

Repeatedly impress upon your pupils some few simple rules like the following:

Foul air renders the blood impure. Bad food, or too much good food, and rapid eating have the same effect.

Whatever injures the teeth, or disorders the stomach, liver or any of the organs of digestion, interferes with the good quality of the blood.

If the blood is impure or insufficient, the body and brain become sick and inactive.

The lungs and the skin purify the blood.

Exercise increases the power of the lungs and strengthens the muscles.

Exercise must not be too violent nor too constant.

Bathing improves the action of the skin. In bathing, the water should be neither too hot nor too cold.

When the body is unhealthy, the mind cannot be at its best.

Selfishness, peevishness, ill-temper, intolerance, prejudice and other kinds of injustice are often the results of indigestion, of an overstrained nervous system, or of idleness.

Keep the skin clean. Keep the teeth clean.

Eat plain, wholesome food moderately.

Food must contain the building material of the teeth, bones, etc. Tea, coffee and tobacco are injurious to the nervous system, and especially so when the consumers are young or delicate.

Sleep is the great preserver of nerve health.

Children should go to bed early, so that they may be well rested when it is time to get up.

#### DIVISION OF CLASSES—

Every class in the Grammar and Primary Departments must be arranged in two divisions, low and high. The low division shall be occupied with silent lessons, while the high is engaged in oral recitation, and *vice versa*. Among the silent exercises are writing, copying, composition, arithmetic from book or blackboard, drawing, writing descriptions of objects, and the preparation of the various lessons.

Having finished the oral exercise in any division of a class, the teacher should immediately allot the silent work for that division, and proceed to examine the completed exercises of the other division before commencing the oral work therein. These examinations must be brief, and may be shortened in various ways; as, 1. By exchange of slates and correction by pupils, as in the case of copying from the Reader. 2. By collection of written exercises and examination at leisure by the teacher.

In the lower grades the exercises in penmanship should be held in both divisions simultaneously once or twice a week, to enable the teacher to go among the pupils, giving individual instruction, and also to explain and illustrate common errors at the blackboard. The same plan should be followed in relation to drawing. The amount of attention to be given to the arithmetic and to the preparation of lessons will be discovered in the oral recitations.

#### CREDITING—

It is very desirable that parents and guardians should know how their children behave at school, and what their general progress is. It is equally desirable that the method of measuring the child's conduct and advancement be accurate—that the report shall tell exactly how he stands. A little reflection will show that the system of checking and crediting most in vogue, instead of truly describing the pupil, absolutely misleads, not only the parents, but the teachers themselves. To find the percentage in deportment, for instance, the checks recorded, whenever during the month the pupil is troublesome or annoying, are added, and the sum is subtracted from one hundred. The child who is naturally nervous and fidgety is sure to be ranked among the worst behaved; the boy who is full of healthful energy, whose school work is not enough for him, who perceives everything which takes place around him, is most likely to rank next worst; but the sly boy, who frequently gets the others into trouble, will be very likely to stand well;

while the stupid, listless children, who are too lifeless even to do mischief, naturally take the palm for good conduct. Then, again, there is the variation caused by the condition of the teacher. This year, the energetic boy's teacher is fresh, healthy and good-natured. She is pleased with his brightness and justly appreciates his good-humor. From time to time she finds it necessary to say a word to check his overflowing spirits. But he just glories in his teacher, and does everything in his power to please her. His report is, as it ought to be, good. Next year, having been promoted, this boy enters another class. The teacher is worn out and sick. The general disposition which last year pleased, this year vexes. Check follows check, and the same boy, who was previously described as very good, is now reported as very ill behaved indeed. If I add that very frequently pupils are appointed to record the checks, and that in such cases charges of favoritism and malice are constantly made, the faith in deportment percentages must be materially shaken.

The scholarship percentages are often more unreliable still. Many teachers act as if the business of their lives was to *examine* pupils and record credits. Some of these *examiners* (they do not deserve to be called teachers) never take the trouble to consider whether a task is difficult or not. They set so many inches of the text-book to be studied by the pupil at home every night. They are great text-book people. They never prepare a lesson; they consider that the business of the pupil alone. And so the unfortunate scholars must study for two or three hours every evening, in order that the school keeper may spend three or four hours next day in examining them and recording their misses. I hope I am citing extreme cases, and that the mention of them will be the means of doing away with them. I wish, however, to render the sources of variation and misrepresentation in the scholarship percentages plain.

1. Some teachers credit their scholars upon all their daily recitations.
2. Some teachers credit their pupils on weekly, and some on monthly, reviews.
3. Some teachers credit their classes upon both the daily recitations and the weekly or monthly examinations.
4. Some teachers drive their pupils, through the medium of long home lessons, over the year's work in six to eight months, so that the remainder of the time may be spent in reviewing and cramming for the promotion examinations.

The check system should be discontinued. The teacher should be able to report the child's conduct as good, fair or bad, from her knowledge of it.

Reports of scholarship should never be based upon daily lessons. The parent does not want to know how his boy answered on certain subjects immediately after having studied them. What he does desire to know is, how much his child retained of what he has learned; what progress he is making from month to month, or from term to term; how much of his school information he will be able to use in after life.

Do not record credits daily. The monthly reviews should discover how much of the most valuable information acquired the pupil retains. It would



be better if the time of examination were still further removed from the time of study; but as the reports are sent out monthly, this is the best that can be done at present. If the scholarship were recorded by adjectives, such as *good, fair* and *poor*, the parents, and teachers also, would know more about the standing of pupils than percentages can possibly show.

#### METHODS OF TEACHING—

It may be well to commence the directions on this branch of the subject by pointing out some of the faulty methods in general use. The idea of education most generally accepted as the true one is that the student must be led to examine—to discover as much as possible for himself—and reach a complete understanding of any subject by building each succeeding acquisition upon the preceding ones. If this idea be the correct one, it will be seen at once that Concert Exercises and Teaching by Lecture must rank among the poorest means of conveying information and developing intelligence.

#### CONCERT EXERCISES—

Of what use are they? Unless it be for the purpose of teaching pronunciation or musical sounds to persons partially deaf, there can be no excuse for the simultaneous shouting known by the above name. They probably develop the vocal organs, but they prevent individual thought and attention, while interfering with the work of adjacent classes. They are the refuge of the lazy.

#### TEACHING BY LECTURE—

Teachers who have the habit of conveying information to their pupils by long, unbroken statements run into the opposite extreme from those who continually examine.

“Neither the method of interrogation nor the method of lecture can be used exclusively; good teaching consists in a judicious combination of both. A teacher will find it constantly necessary to state facts to the children; but he should immediately after, or during the course of the lesson, question them on these very statements; the facts—statements without the subsequent interrogation—generally go for nothing, and the longer they are the more certain of being immediately forgotten. It is vain to attempt to throw blame on children who are found ignorant of certain subjects they ought to know, by asserting that they have been often *told* all about it: if the teaching consisted in merely *telling*, even though the process is gone through sufficiently often, the blame assuredly does not rest with the pupils.”

#### ANSWERING IN CONCERT—

In oral teaching it is customary to put questions to the whole class. The teacher frequently allows whoever can to answer. In reality, three or four pupils do the thinking and answering, but the others, who are mere echoes, catch up the sounds so quickly that, to the inexperienced, the entire class

appears to answer simultaneously. In such cases, the proper plan would be either to call upon some particular pupil to answer, with the understanding that if he should fail, every pupil who thinks he can answer correctly should raise his hand so that the teacher may select the next speaker, or, if the question were given to the entire class, it should be understood that no pupil should speak, but that all who believed they could answer should raise hands and wait for the teacher to make his selection.

#### READING—

In teaching reading the main point is to accustom children to pay attention to *what* they read. For this purpose, from the very beginning, the teacher must invariably question his pupils on the subject-matter of their lessons. In the lower grade, when a child shall have read a paragraph, or so much of the lesson as relates to one branch of the subject, the teacher should at once ask such questions and give such information as will enable the pupil to understand what he has just read. In the higher grades the questioning may take in the signification of several paragraphs of the entire lesson. In connection with every reading lesson, the teacher must see that the pupils understand the language and retain whatever is of value in the information given.

Reading (as to style, inflection, etc.) is learned by imitation. The teacher is the model. Hence, if a teacher would have his pupils read well, he must first read well himself. It is not expected that every teacher shall be an elocutionist, but it is expected that every teacher will read with ease and judgment, correct pronunciation and distinct utterance, or that he shall teach himself to do so as soon as possible. A poor penman may teach writing well, but no one can teach reading well unless he is himself a good reader. During reading lessons the teacher should frequently read sentences for the children's imitation. These example sentences should be enunciated very slowly; every consonant should be hit, and every syllable should be distinctly heard throughout the room. Hurry and indistinctness are the great fault to be overcome in teaching reading.

The meanings of words occurring in the lessons should not be taught singly, but should be brought out in explaining the subject-matter. If a pupil can use a word correctly, he understands its meaning, even though he may not be able to define it. Spelling, in connection with reading, should also be carried on by phrases and clauses.

Teachers should be careful not to allow the questions on subject-matter and other exercises naturally accompanying reading, to lead them off into discussions about other subjects, such as Geography, History, etc.

Unless a teacher, from constant practice, knows the lesson well, he should carefully read it beforehand and prepare his line of questioning.

Remember: Every sentence read and every answer given should be heard distinctly by every pupil in the room.

Reading should be heard in but one division of a class at a time. The other should be occupied with silent work. The entire class might occasionally be permitted to give attention to the exercises, questions on subject-matter especially, if the attendance is large.

In all the grammar grades, at least one hour a day should be devoted to Reading. When the classes are large, the teacher should not expect to hear every pupil read daily. In that case probably the best order would be: Reading—twenty minutes in each division. Subject-matter, etc.—twenty minutes for the entire class.

#### SPELLING—

The teaching of this branch is rendered difficult in various ways: 1. It is not taught as much through the medium of writing as it should be. 2. Pupils are required to spell words which they neither need nor know how to use. 3. The tasks (set by the piece) are enlarged both by unusual words and words not likely to be misspelled. 4. The child's own vocabulary does not receive sufficient attention.

Outside of the schools, spelling is used only in writing. Oral spelling certainly calls in one sense to help another; but the great use of spelling is to enable us to write words correctly. In spelling detached words, we are naturally introduced to the most difficult ones, and are thus frequently allowed to remain ignorant of the orthography of the simplest and most common words. The remedies for these defects would seem to be frequent exercises in writing sentences from dictation, and in spelling phrases and clauses orally.

Spelling lessons (tasks) should be reduced by striking out unusual words and words which all the pupils can spell.

The child's natural vocabulary should be improved as to spelling and choice of words by careful examination and correction of his compositions and other written exercises.

#### GRAMMAR—

The object of this study is to enable the student to use the language correctly. Most of our text-books on Grammar seem to have been written for some inflected language and afterwards translated into English. They are full of rules which are true of Latin and kindred languages, but which are not rules of English Grammar at all. The writers, blindly following the example of the classical scholars who published the first English Grammars, so called, seem to think that no one can speak or write English grammatically until he can parse every word he uses. This may be true of inflected languages, but it is not true of English. Some one has well said: "To understand Latin, one must parse it. To parse English, one must understand it." If teachers will reflect that so many who have for years studied parsing and grammatical technicalities are still unable to speak and write English correctly, they will see that something beside the committing

of rules and definitions, and studying the relations of words in sentences is necessary; that something is the *practice and habit* of speaking and writing correctly. The teacher must never allow an error in the use of language to go uncorrected, *whether the mistake be his own or his pupil's*.

The inflections or changes in the endings of English words are very few. Pupils should be led directly to the study of these changes of form, and the intervening filling matter should be omitted. Parsing and analysis, except so far as they teach inflections and enable pupils to discover modifiers, are useless. The pupil needs to study, not to pull sentences to pieces, but to properly construct them. The best way children can learn to use the language properly is to constantly use it under the competent direction, constant correction and good example of the teacher. The teacher should guide and correct the pupil. In doing this, he should avoid saying anything unnecessary. The scholar should be required to do nearly all the talking.

#### WRITING—

A good penman is one who writes legibly and rapidly.

Except in a very few schools, the children of our department write remarkably well. In a few schools, also, the desire to excel in quality has driven the pupils into the habit of working far too slowly.

Heretofore the management of penmanship, in each school, has been left to the direction of the Principal; but as, during the past year, complaints were frequently entered at this office of the neglect of this important study, it has been thought best to enumerate the books for the several grades.

In view of the careful consideration given to this study throughout the Department, and of the fact that in the Course of Study published in 1879 Deputy Stone gave ample directions as to the proper method of teaching penmanship, it will now be sufficient to point to one or two ways in which the present handling of this subject may be improved.

1. The rapid writing of compositions and other written exercises should be more carefully supervised. Pupils should be required to copy all writing which is not clear and legible.

2. In the Primary Schools, where the greatest attention is given to penmanship, a system of angular writing has sprung up which must be unlearned before anything like business rapidity or legibility can be attained.

This style of writing, laboriously worked out, with a pause at the end of every stroke, looks pretty well, and rather forces the children to go slowly; but let any of our teachers, accustomed to the elegant oval writing of this country, attempt to read a letter written in the English angular hand, and she will very quickly decide that this new thing is not a good thing. It is a little strange that the schools of a country whose general penmanship leads the world should take up a system which Europeans have been endeavoring for nearly half a century to get rid of.

Teachers frequently take it for granted that operations are so clear and simple that pupils must understand them. This is a mistake which can be guarded against by daily oral exercises and explanations.

Following are some hints on first lessons in numbers:

1st Step—Give the children nine counters each (toothpicks, beans, shells, etc.) Have each child place them in one heap on the left side of his desk. Teach the pupils to count, by removing one counter at a time to the right side of the desk, calling or whispering one, two, three, etc., as the work progresses. Cause the children to repeat the exercise without speaking. The teacher should frequently interrupt the work to inquire how many (beans, etc.) in the second heap, and later, how many in either. These exercises should be repeated until the children can perform them rapidly and accurately. With a set of toy nine-pins individual pupils should be required to perform the same exercises in the presence of the class at the teacher's table. Simultaneously a similar exercise should be performed at the blackboard, by placing nine strokes (1's) in column, and rubbing one out and setting a new one on the right at each removal of a counter, the new strokes also to be kept in column.

2d Step—With 9 counters, as before, have the second heap formed by taking first one and then two counters, and so on, alternately, from the first heap. Interruptions as before. The exercise might now be varied by requiring the pupils to take one or two counters at a time at the direction of the teacher. The children should be taught to make the figure 2, and the exercises at the table and blackboard should be repeated. Similar exercises should be given by sound, the teacher making single and double taps with a pencil or pointer. It would also be interesting to occasionally have a blind-fold child find the number of counters on his desk by touch. The more of the senses employed the better. The pupils should next be taught to count or add by twos, and thus to discover that two counters and two counters, or two counters taken twice, made four counters; that two and two and two, or two counters taken three times, or three times two counters, are six counters, etc.; also, that when two counters are taken from nine, seven remain; that when four are taken away, five remain, etc. Teach the children to make the figure 3 correctly. In exercises at the blackboard, be careful to write the name of the counter at the head of each column. Before teaching counting by 3's, children should be able to remove 2 and 1 or 2 and 2 counters at one motion, and to tell the sum of all possible combinations of 2 and 1 below 10, as fast as the teacher might write them *in column* on the board, as well as the difference between these sums and 9. Children should also be able to tell *at once* the result when two counters are put with or taken from any number below 9.

3d Step—Give the corresponding exercises with 1 and 3; then with 2 and 3; then with 1, 2 and 3, never forgetting to name the objects. Teach the figures 4 and 5.

4th Step—Take four counters in like manner, varying the exercises as much as possible. Teach the figures 6 and 7.

5th Step—Take 5 counters similarly. In every instance constantly review the preceding steps. Teach the figures 8 and 9.

6th Step—6. 7th Step—7. 8th Step—8.

When the children can properly write the digits on their slates and the blackboards, the teacher should give constant drill in exercises like the following:

BEANS.

No. 1.	1	1	1	1	1	1	1	1	1
	1	2	3	4	5	6	7	8	9

In No. 1, any pupil called upon should at once name the sum thus: 1, 6, 7 beans. He should not be allowed to say six beans and one bean are seven beans. Numbers written for addition should not be written in horizontal line with the sign +, but should be placed in columns as they will appear in practice.

MARBLES.

No. 2.	2	2	2	2	2	2	2	2
	1	2	3	4	5	6	7	8

PEBBLES.

No. 3.	3	3	3	3	3	3	3
	1	2	3	4	5	6	7

BUTTONS.

No. 4.	4	4	4	4	4	4
	1	2	3	4	5	6

And so on—no sum to exceed 10.

Reverse this process thus: 3 marbles are the same as

1 2  
1 or  
1 1

4 buttons the same as

1 2 2 3  
1 or or 1 or etc.  
1 2 1 1  
1

To 9. For addition purposes it is more important to know what pairs of numbers any of the digits equals, thus:

9; 1, 2, 3, 4, 5, 8; 1, 2, 3, 4, etc.  
8, 7, 6, 5, 7, 6, 5, 4,

SHEEP.

1  
2  
3 how many sheep?

MARBLES.

2  
4  
3 how many marbles? etc.

TOPS.  
3, {and how many  
4, {make 9 tops?

POUNDS.  
5, {and how many  
4, {are 9 pounds?

The foregoing are a few of the exercises, which any bright teacher can vary almost indefinitely, in concrete numbers, involving sums not greater than 10. The next step would be to get the pupils to say, at a glance, the sum or difference of any two digits. Addition, subtraction, multiplication and division will be taught from the very outset, if the exercises are judiciously varied. If a child knows that 5 marbles and 4 marbles are 9 marbles, it should be easy to have him see that 5 marbles will remain if 4 are lost out of 9.

If a child learns that 2 and 2 and 2 and 2 are 8 marbles, it should be easy to teach him that 2 buttons taken 4 times, or 4 times 2 buttons, are 8 buttons, and that 2 buttons are contained in 8 buttons 4 times; or even if 4 equal divisions are made of 8 buttons, that each part, one-fourth of the whole, would contain two buttons, etc.

Nearly all the schools are supplied with numeral frames, and all the foregoing exercises should be performed upon them, under the correction of the class, by individual pupils.

Nothing more difficult than the preceding exercises indicate should be expected of children in the Receiving Classes. Pupils placed in the regular Eighth Grade will do very well indeed if they can tell, without delay, the sum or difference of any two numbers not greater than 10, and the number of times 2, 3, 4, 5, etc., are contained in numbers not exceeding 20.

In the ordinary addition of columns like the annexed, do not at any time allow the pupils to say 7 horses and 2 horses are 9 horses;      HORSES.  
9 horses and 8 horses are 17 horses; 17 horses and 5      6  
horses are 22 horses; 22 horses and 3 horses are 25 horses;      4  
25 horses and 4 horses are 29 horses; 29 horses      3  
and 6 horses are 35 horses. The proper plan is to      5  
name the sums in succession, thus: 9, 17, 22, 25, 29, 35      8  
horses.      7

Finding aliquot parts should commence as soon as the pupils begin to have a clear idea of division. For example, the teacher runs out twelve beads on the numeral frame, and asks who can divide them into three equal lots. Some one will succeed in the experiment, and the pupils will re-discover what they already knew, that there are three fours in twelve, or that three times four balls are twelve balls; but they must now be taught something new, namely, that when any thing, or any number of things, is divided into *three* equal parts, each part is said to be one-third of the whole. In the same way they should find halves, fourths and sixths. These exercises should be continued at least as low as the Seventh Grade, but children should not be expected to find more than *one-third*, *one-fourth*, etc. In the Sixth Grade children should be able to find *one-half*, *one-third*, *one-fourth*, *one-fifth*, etc., of numbers of things less than 20, which can be so divided

without a remainder. In this grade, also, towards the latter part of the year children might be led, but very cautiously, to see that the smaller aliquot parts of quantities are contained exactly in some of the larger parts. Thus the 12 beads might be divided into 12 equal parts. From this it would appear that one-twelfth of the 12 or dozen beads is one bead; that 2 of these beads or two-twelfths = one-sixth of the dozen; 3, one-fourth; 4, one-third; 6, one-half. In the Fifth Grade pupils would discover that 8 beads are  $\frac{2}{3}$  of a dozen (the fractional form may now be used for the first time and as a substitute for the words), that 9 beads are three-fourths, 10 beads five-sixths, and that 5, 7 and 11 beads are respectively five-twelfths, seven-twelfths and eleven-twelfths of a dozen. Similar exercises in finding parts of numbers of things up to 20 should be introduced. These exercises are of the highest merit in giving pupils a good knowledge of the relative values of fractional parts of quantities. Subtraction of fractions would naturally follow from a comparison of fractional parts of the same thing; for instance, if it were asked which is greater, one-third of something or one-fourth of it, the answer would come to children as here indicated in two ways. One child would think that to get one-fourth of a pie it would have to be cut into four equal parts, while to get one-third there would have to be but three parts made of it; and hence, there being fewer parts, a third would be larger than a fourth. Or, some pupil would be apt to say: "If you divided the pie equally among three boys, each would get one-third of it; but if you had to make it do for four, each would have to get a smaller piece." Another child would remember the beads, and say: "If I made three equal heaps of the 12 beads, each third would contain 4 beads; if I made four equal parts of the dozen beads, each fourth would contain 3 beads," so that the third would have 1 bead more than the fourth. It would be easy to show that the one bead is one-twelfth of the whole, and by performing the experiment with 24 or 36 beads, or with anything cut up into 12 equal parts, that the difference between one-third and one-fourth of anything is one-twelfth of it. It will be easy to proceed from subtraction to addition. All the composite numbers below and including 20 should be divided into their aliquot parts, with which the exercises indicated should be performed, working with subtraction and addition until the pupils acquire considerable quickness and a good idea of values, and then passing naturally to multiplication and division. Let us see what can be done with 16 articles: 16 equal articles may be divided into 16 equal parts, each containing 1 article. Each article will be one-sixteenth of the whole. The 16 articles will be sixteen-sixteenths, or the whole:

8 articles are 8-16 or  $\frac{1}{2}$  of the 16.

4 articles are 4-16 or  $\frac{1}{4}$  of the 16.

2 articles are 2-16 or  $\frac{1}{8}$  of the 16.

4 + 2, or 3 times 2, or 6 articles, are 6-16 or  $\frac{3}{8}$  of the 16; 4 articles are  $\frac{1}{4}$  and 2 articles  $\frac{1}{8}$  of the whole; therefore  $\frac{1}{4} + \frac{1}{8}$  of the whole =  $\frac{3}{8}$  of it. Again, 4 articles are twice 2 articles; therefore,  $\frac{1}{4}$  equals twice  $\frac{1}{8}$ ; hence



$\frac{1}{4}$  contains  $\frac{1}{8}$  twice; therefore, if  $\frac{1}{4}$  of anything be divided by  $\frac{1}{8}$ , the answer must be 2. Division finds how often one quantity is contained in another quantity of the same kind. If  $\frac{1}{4}$  is twice  $\frac{1}{8}$ ,  $\frac{1}{4} = 2 \times \frac{1}{8}$ ; then  $\frac{1}{8}$  is  $\frac{1}{2}$  of  $\frac{1}{4}$ , and  $\frac{1}{4}$  taken  $\frac{1}{2}$  of once, or  $\frac{1}{4}$  multiplied by  $\frac{1}{2}$ , equals  $\frac{1}{8}$ . (It will be sufficient in the Fifth Grade to show by means of objects that  $\frac{1}{4}$  is three times  $\frac{1}{12}$ , that  $\frac{1}{2}$  is four times  $\frac{1}{12}$ , that the difference between  $\frac{1}{4}$  and  $\frac{1}{8}$  is  $\frac{1}{8}$ , etc.)

Similarly, 10 articles are  $\frac{1}{2}$  of the 16, and  $\frac{1}{8}$  greater than 8 articles, or  $\frac{1}{8}$ ; 12 articles, or  $12-16 = 3$  times 4 articles; but 4 are  $\frac{1}{4}$  of 16 articles; therefore, 12 articles, or  $12-16$  of the whole =  $\frac{3}{4}$ . So with 14 or 7-16. So that with 16 counters, not only can the sums and differences of halves, fourths, eighths and sixteenths be taught, but also the number of times any of the smaller parts is contained in the larger. Oral lessons like the following should frequently be given:

When something is divided into sixths, into what other aliquot parts may the sixths be divided? Ans. Thirds; because 2 sixths equal  $\frac{1}{3}$ ; and halves, because 3 sixths =  $\frac{1}{2}$ . What do 4 sixths equal? Ans. Two-thirds ( $\frac{2}{3}$ ). How much greater is 5-6 than  $\frac{1}{2}$ ? Ans. Since  $\frac{1}{2}$  is 4-6, 5-6 is greater than  $\frac{1}{2}$  by 1-6, etc.

The study of the least common multiple, and through it the reduction of fractions to equivalent ones having a common denominator, is purposely excluded, so that pupils, by following the line of study here suggested, may acquire a more usable knowledge of what may be termed business fractions. Nineteen-twentieths of the fractions used in business have but one figure in the denominator.

Just as soon as pupils are reasonably proficient in the simple rules, decimals should be introduced through the medium of United States money. Addition and subtraction of decimal money is just as simple as addition and subtraction of common numbers, and multiplication and division are nearly so, when the multipliers and divisors do not contain decimals. The pupils, of course, should be cautioned, when working addition and subtraction, to keep similar denominations in columns; that is, to keep the decimal points in a vertical line; and in multiplication and division to set down the point in the product or quotient when it is reached in the multiplicand or dividend.

Example No. 1.

$$\begin{array}{r} \$3.25 \\ 6 \\ \hline \$19.50 \end{array}$$

In this example, 6 times 5 cents are 30 cents or 3 dimes; 6 times the two dimes are twelve dimes, which, with the 3 dimes, make 15 dimes or one dollar and fifty cents. The *point* is always placed between dimes and dollars; hence the 15 dimes would be written \$1.50. The one dollar is then added to six times 3 dollars, making in all, \$19.50. After working several exam-

ples, it will be easy to explain that while multiplying by whole numbers, the number of decimal places in the product always equals the number in the multiplicand.

Example No. 2.

$$\begin{array}{r} 6)\$19.50 \\ \hline \$3.25 \end{array}$$

Here, one-sixth of \$19 is \$3, with one dollar to spare. By reducing this dollar to dimes and putting it with the 5 dimes already in the dividend, I have to find one-sixth of 15 dimes. This gives two *dimes*, with three dimes to spare. As usual, I place the decimal point between the dollars and the dimes. I next reduce the three dimes left to 30 cents, one-sixth of which is 5 cents. Several examples will show that when the divisor is a whole number, the decimal point must be set down in the quotient upon reaching it in the dividend.

NOTE.—Addition of United States money might be taken up as early as the Seventh Grade; subtraction should be added in the Sixth; but it would be better to leave multiplication and division for the second term of the Fifth Grade year.

Before explaining multiplication with decimals in the multiplier, the pupil should understand common fractions pretty well. It should then be shown that the trouble of writing the denominators of decimal fractions is saved and the name preserved by making the decimal, that is, the numerator, contain as many places as there would be ciphers in the denominator, if it were written—thus, 3-1000 is written .003. 25-100000 is written .00025, etc.

Example No. 3.

$$\begin{array}{r} \text{lbs.} \\ 4.05 \\ .6 \\ \hline 2,430 \text{ lbs.} \end{array}$$

If we should multiply 4.05 lbs. by 1-10, we should say, 1-10 of 5-100 lbs. is 5-1000 lbs. or .005 lbs., and 1-10 of 4 lbs. is 4-10 lbs., or .4 lbs.; therefore 1-10 or .1 of 4.05 lbs. is .405 lbs.; but .6 of the same quantity must be six times as much, that is, 6 times .005 lbs., which is 30-1000 or .030, and 6 times .4, which is 24-10, or 2.4, and altogether 2.430 lbs. From several examples we should conclude that multiplying by tenths adds one to the number of ciphers in the denominator, or, which is the same, one to the number of decimal places in the product; multiplying by hundredths adds two places; by thousandths three places, etc. As it has already been shown that in multiplying by a whole number, the number of decimals in the multiplicand will appear in the product; therefore, generally, in multiplication of decimals, the product will have as many decimal places as there are decimals in the multiplicand and multiplier together.

Before explaining division, when the divisor contains decimals, it will be

necessary to show that any divisor and dividend may be multiplied by the same number without affecting the resulting quotient. Thus, if 8 lbs. be divided by 4 lbs. the quotient will be two; and it will be precisely the same if 8,000 lbs. be divided by 4,000 lbs.

Example:

.005 lbs.) 2.05 lbs. will give just the same quotient as 5 lbs.) 2050 lbs., because both divisor and dividend have been multiplied by 1000. Under this plan the operation becomes simple division.

Example:

\$.25) \$.575 = \$.25) \$.57.50, because the terms have been multiplied by 100.

A few examples will show the pupils that the plan is to multiply both divisor and dividend by such a number as will make the *divisor* a whole number. Then the operation either becomes simple division or it is brought under the first case explained, viz.: when there are decimals in the dividend but none in the divisor.

Problem: How many yards of cloth may be purchased for \$50.75 at \$1.12½ per yard?

*Operation.*

\$1.125) \$50.75.

Which, of course, means  $\$50.75 \div \$1.125 =$

$\$1125) \$50750. (45.11 \text{ yards.}$

$$\begin{array}{r}
 4500 \\
 \hline
 5750 \\
 5625 \\
 \hline
 1250 \\
 1125 \\
 \hline
 1250
 \end{array}$$

45.11 or 45 1-9 is the answer. It has been obtained by dividing 1,000 times \$50.75 by 1,000 times \$1.125. Children should have plenty of practice in this changing to equivalent examples having no decimals in the divisor. The example should first be set down in its original form, and then the equivalent one should be placed immediately underneath. From this work, the pupils should deduce: 1. That moving the decimal point one, two, three, etc., places to the right is the shortest way of multiplying by 10, 100, 1,000, etc. 2. That when the point is moved to the right of the divisor, to make it a whole number, it should be moved just the number of places to the right in the dividend. 3. That the point is always expressed or understood just on the right of units.

The great advantages of this method are: 1. That the scholars find the point in the quotient when they come to where it should be placed, and do not have to run the risk of making mistakes in counting back; and, 2. That they can readily understand the reason of the rule. In every example, as soon as the units of the new dividend are brought down and used, the point is set down in the quotient.

**PERCENTAGE—**

Should be introduced to the pupil through the method of fractional parts, with which he should previously be thoroughly conversant. He is required to change other fractions of quantities to hundredths, and hundredths to other fractions, or simply to find hundredths of things by decimals, instead of by the common fractions to which he has been accustomed. Every per cent. from 1 to 100 should be expressed both as a common fraction and as a decimal.

Instead of studying Profit and Loss, Commission, Interest, Compound Interest, Annual Interest, Partial Payments, Discount, Bank Discount, Stocks, Taxes, etc., as distinct cases of percentage, these various forms of transactions in business should be introduced as examples in which a simple percentage or part of a quantity is found, or a percentage added or taken off. Instead of following the order of the text-book, the teacher should so classify these rules. There are also a very few business transactions in which it is required to separate an amount consisting of a quantity plus a percentage of that quantity into these distinct parts.

There should be a great deal of mental arithmetic and oral teaching in connection with percentage.

**GEOGRAPHY—**

Owing chiefly to the want of method in the arrangement of the text-books, and also to the lack of a sufficient supply of good wall maps, this subject has been, up to the present, rather poorly taught, and, as usual in such cases, has frequently been, instead of a benefit, a source of annoyance and irritation to both teachers and pupils.

It is with the object of improving the quality of instruction in geography, that the quantity to be studied has been so much lessened by the omission of non-essentials. For the same reason, the course for the various grades is given in a more detailed manner than formerly, and more naturally connected than it could be if the text-books were followed.

It is not expected that the teacher is to take up nothing not mentioned in the work of his grade, any more than it is desired that he shall exhaust every subject introduced therein; but it is expected that the suggestions of the Course will caution him against losing valuable time upon valueless trifles, while, at the same time, they will draw his attention to many matters which it is good to know.

The great use of Geography is to give commercial knowledge. If the teacher will constantly keep this central fact before him, he will not burden the pupil with dry and difficult tasks in the mere location of unimportant places. Geography, well taught, will give us an intimate acquaintance with the people and productions of foreign places. The geography of localities will become, as it should, an incident of this instruction, and child and teacher will not be wearied and irritated by the everlasting hunt for lakes

here, rivers there and cities somewhere else, with no object which the pupil can see, except to push, puzzle and punish.

Keep the work connected. Take the leading facts first, then attach the details, commencing with the most important.

#### OBJECT TEACHING—

The directions on this subject, like those on Geography, are much more copious than heretofore, and for similar reasons.

Object Teaching should arouse and develop the faculty of observation and lead to the study of Physical Science. If Object Teaching, supplemented by the study of Elementary Physics and Industrial Drawing, were made general in our schools, it is not too much to say that the number of inventors in this country would be doubled within fifteen years.

Another great benefit of these conversation lessons on common things is the spreading of useful information. Why is it, then, that such splendid opportunities for pleasing and enlightening our school children, by making their knowledge general, are so commonly neglected? The gain in the use of language alone will more than pay for the time spent, but the great gain to teacher as well as pupil will lie in the acquirement of habits of correct observation, which will enhance the pleasure and profit of their entire lives. No man can have general intelligence who has not the habit of observing what goes on around him. In most cases this habit can be acquired through proper early training.

#### DRAWING—

The following directions are from the pen of a former special teacher of drawing in this department:

“GENERAL INSTRUCTIONS—Teachers will please read carefully the instructions in the Manuals, and follow them to the letter.

“Before doing an exercise in the books, frequently have pupils draw the same on the boards or in their blank-books.

“Wherever there is a figure representing some object familiar to the pupil, use it for an object form. Ask the pupils whether they have before seen any form like or similar to the one given; ask them to draw it on the board or in their blank-books, and encourage them to make drawings of such objects at home, and bring them to the school-room. Have the best of these drawings placed on the board, correct it, and copy it into the blank-books.

“Use any form in the books that may seem fit, to exercise pupils in making designs. Start early with this, and in the beginning be satisfied with a fair understanding of the principles explained.

“Do not give any set definitions, but explain every form given and every term used, in words that seem to you suited to the understanding of your class. If a pupil cannot find words to express his ideas, send him to the board to explain them by lines.

“Have frequently exercises in memory drawing, using at first points of

simple proportions. Gradually attempt more complicated ones; but be sure your pupils know well what they have to draw *before you allow them to reproduce it from memory*. Correct carefully, especially as regards proportion, one of the drawings on the board, and have the class correct theirs accordingly. Be more strict with them in this than any other exercise, as without a fair degree of accuracy these lessons would fail to accomplish the object desired.

"The lessons in the primary grades should be twice a week, thirty minutes each lesson. In the grammar grades one lesson per week, one hour each."

#### HISTORY—

Many teachers seem to think that History should be generally studied for the great mass of facts which it furnishes, and hence they would have pupils remember every name, date and circumstance, no matter how unimportant. This is wrong. We must never forget that human acquirement is limited, and consequently that pupils will have more than enough to do in attempting to remember what it seems necessary to know. Histories should be looked upon as readers or reference books. It is useful to understand the causes of the advance of liberty or of the success of tyranny. It is well to learn that unfairness or unnecessary severity in the governing power always produces disloyalty and discontent among the governed. That the community in which the individual governs himself most needs severe government least. That proper education, with proper ends in view, leads most directly to self-control, and, at the same time, creates and fosters the strongest check upon misrule. It is proper to know that the nation which possesses the most natural wealth, and whose inhabitants have the most intelligence and the highest sentiments of liberty and order, should be the greatest nation; but, at the same time, History should remind us that the ease of subsistence under these circumstances produces apathy and improvidence, which lead to the concentration of great wealth and power in the hands of a few, who are pretty sure to endeavor to retain their supremacy by corrupting legislation, and thus infringing the liberties of the people. History teaches that republics weaken when they are most luxurious, or rather, when the general desire to become rich rapidly enables the powerful to increase their wealth and influence by corrupting the poor. In this way the people are gradually separated into two classes—Patricians and Plebeians, aristocrats and the "lower classes"—the very rich and the very poor. Where aristocracy persists, monarchy is sure to come. When great republics fall, empires take their places. When monarchies fall, through tyranny and misrule, republics rise upon their ruins. These changes of government, with a general knowledge of the causes which lead to them, make up the historical information which the student should bring to the activities of citizenship. The minor details, necessary, perhaps, to the narrative of the historian, are fit matters for reference.

**DECLAMATION—**

In all the grades, pupils should be required, at least once a month, to commit to memory and declaim with such emphasis and inflection as will properly bring out the sense, quotations teaching honor, morality, courage, patriotism, etc. Class declamations should be avoided. They do not seem natural. Occasional concert exercises in pronunciation, emphasis and inflection are, however, useful. Two readers or speakers may convey the sense of the same extract equally, though their inflections differ materially. The plan which many teachers adopt, of stopping the pupil's reading or recitation every moment, in order to correct errors of pronunciation or utterance, or to suggest inflections or emphasis, is not a good one. The teacher should note the errors and draw the pupil's attention to them at the close of a sentence or paragraph, or when the piece is spoken.

In the higher grades the pupils should be required to mark, by underlining in pencil, the words which in their opinion should be emphasized. This marking should be corrected by the teacher while the pupil speaks, when he fails to bring out the meaning. The teacher should frequently read or recite model paragraphs, requiring the pupil to underline the emphasized words.

Teachers will, of course, see that the quotations in the lower grades are short, simple in language, and pithy. Declamations, like speeches and addresses in real life, should almost always be prose.

When the attendance is not too large, the teacher can get around her class once a month by holding these exercises weekly.

Exercises in Declamation are expected to give pupils habits of correct pronunciation and distinct articulation, and to accustom them to public speaking.

**MUSIC—**

Besides the singing exercises mentioned for the various grades, instruction in music should be given during from half an hour to one hour weekly.

**CONCLUSION—**

There are but few subjects—indeed, I might say there are no subjects—that cannot be made attractive and entertaining by teachers whose hearts are in their work. Of course, a teacher cannot induce his pupils to like what he hates. We all study best what we like best. It is harder to make one think against his will than to make one eat or drink against his will. It is natural in man to criticise. Why are not children induced—perhaps I should say allowed—to criticise their school work?

In this COURSE OF STUDY an earnest endeavor has been made to lessen the drudgery of the class-room work, by the omission of non-essentials and unnecessary detail, as well as by the fulness of the directions upon the manner of dealing with the various studies. This is especially true of Grammar and Geography.

The author hopes that the instructions given will be found of especial

value to a large class of young teachers who have had no special training or preparation for their profession before entering upon its duties. He also trusts that the decrease in the quantity of their work will enable the more experienced teachers to improve the quality of their instruction, by giving them time to teach according to natural methods.

It is devoutly to be desired that every teacher in the Department will read the entire course, and cheerfully resolve to obey its instructions, both in letter and spirit, before he determines that it is impossible to do as it commands.

Teachers of the various divisions of the Department have been consulted in regard to the work set for each grade, that is, Primary Principals and Assistants have been called upon to criticise and amend the Primary Course, and Grammar Principals and Assistants have taken the same action with regard to the Grammar Course.

Although the departures from previous methods have been generally in the line of simplification, it will be necessary for teachers to study the changes carefully, not only in the work of their own classes, but throughout the whole Course.

I shall not say I hope the principals will endeavor to have the changes and requirements of this Course carried out promptly, with good judgment and in the spirit of the writer, for I know they will.

The few teachers (and I hope they are very few) who dislike change—who always believe the old way best—are earnestly requested to say nothing for or against the methods proposed until they shall have given them an honest six months' trial. If by that time the practical application of the preceding instructions shall have developed faults and oversights, as no doubt they shall, no one will be more eager to correct the errors and supply the omissions than the author.



# Examination of Teachers.

MARCH 23, 1885.

## BOARD OF EXAMINERS:

A. J. MOULDER, Chairman.

H. W. PHILBROOK,

E. A. CLEVELAND,

C. B. BARLOW,

ALBERT LYSER.

Secretary, GEO. BEANSTON.

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## DIRECTIONS.

1. No communication. Every paper must be finished at one sitting. No use of books during examination.
2. Write your name on one of the cards given to you, for the examiner, and keep the other to enable you to remember your number in examination.
3. Write only on one side of each sheet of paper, number your pages, leave a margin, divide into paragraphs and do not crowd your words. Number all answers to correspond with the questions and subdivisions of questions.
4. In arithmetic separate every operation by ruled lines across the page, or by a blank space.  
Make large figures, and do not mix up operations.
5. In grammar use the briefest form of parsing and analysis, and do not waste words on details.
6. After you have completed a paper, examine it carefully with reference to spelling, capitals and punctuation. Any deficiencies in legibility of writing, correctness of spelling, punctuation and capitals subject the examinee to a deduction of credits.

## REPORT OF SEMI-ANNUAL EXAMINATION.

SAN FRANCISCO,

188

Name of applicant—

To secure a Second Grade certificate 85 per cent. is required.

To secure a First Grade certificate 85 per cent. is required.

	Standard First Grade.	Standard Second Grade.	Credits on Examination.
Arithmetic.....		80	
Grammar.....		50	
Composition.....		30	
Geography.....		70	
Theory of Education.....		50	
Penmanship.....		30	
History.....		40	
Spelling and Defining.....		70	
Algebra.....	70		
Physics.....	70		
Physiology.....	70		
Spencer on Education.....	60		
Drawing.....	20		
Bookkeeping.....	50		
Arithmetic (Oral).....	50	50	
Physical Geography.....	40		
Reading and Subject Matter.....	50	50	
Physics.....	20		
Music.....	15		
Grammar.....	40	40	
Total.....	960	560	

Experience extra.

Percentage, —

Sec. Board of Examiners.

### GENERAL QUESTIONS.

1. Write your name in full, your number in examination and place of residence.
2. For what grade certificate are you an applicant?
3. In what schools were you educated? How long did you attend each?
4. What references do you hold?
5. What references in respect to teaching?
6. What letters or references in respect to moral character?
7. In what places and what schools have you taught? How long in each? How many months or years in all?

Applicants are required to sign and swear to the following application:

No. in Examination.....  
 Age,.....years .. months.  
 Residence.....

I intend, if successful, to follow teaching as a profession, and consider it immoral and unprofessional to improperly obtain or use the questions or answers for this or any other teachers' examination.

Sworn and subscribed to before me }  
 this.....day of.....18.. }

### ARITHMETIC.

Time, 3 hours. 13 Questions—80 Credits.

Solve 10 of the following 13 examples. The applicant to select the 10.

1. How many pounds of wheat at  $\$3.14\frac{1}{2}$  per cental can I get for 1 lb. 3 oz. 14 dwt. and 12 grs. of gold at  $\$16.00$  per oz?
2. How many bottles each containing  $\frac{1}{11}$  of a quart can you fill from a cylindrical tank 30 inches diameter and  $3\frac{1}{2}$  feet deep, the tank being only two-thirds full of oil?

3. A cow is tied to a high board fence. How many feet of rope (discarding fractions) must you give her to allow of her grazing over an area of one quarter of an acre?

4. Upon the summit of a hill whose perpendicular height is 60 feet stands a pine tree 30 feet high. At the base of the hill runs a small creek. The distance from the summit along the slope of the hill to the edge of the creek is 100 feet, and the distance from the top of the tree to the opposite shore of the creek is 150 feet. What is the width of the creek?

5. I bought a cask of brandy containing 46 gallons at \$2.50 per gallon. If 6 gallons leak out, how must I sell the rest per gallon so as to gain 25 per cent?

6. A 30 acre rectangular tract of land 121 feet deep sells at the rate of \$1,800 per acre. What is the price per front foot?

7. How many yards of velvet ribbon  $\frac{3}{4}$  of an inch wide will be required to line the entire face of a robe  $2\frac{1}{2}$  yards long by 2 yards wide?

$$8. \frac{(\frac{3}{4} \text{ of } 10 \times .05) \div \frac{1}{2}}{(.001 \times .002) \times \frac{1}{2} \times 1000} = ?$$

9. A circular plate 6 inches in diameter weighs 150 pounds (10 oz. to the cubic inch.) What is the thickness?

10. If a grocer's gallon measure is too small by 1 gill, what does he make dishonestly in selling 2 hogsheads of molasses averaging 58 gallons 2 quarts 1 pint each, worth 80 cents a gallon?

11. A town  $6\frac{1}{2}$  miles long and  $5\frac{1}{2}$  miles wide is equal to how many farms of 110 acres each?

12. If 16 men can dig a ditch 24 yards long in 20 days, by working 10 hours a day, how many will dig a ditch 72 yards long in 60 days, working 8 hours a day?

13. A room is 20 feet long, 16 feet wide and 12 feet high. What is the distance from one of the lower corners to the opposite upper?

#### ARITHMETIC, ANSWERS.

1. 1 lb. 3 oz. 14 dwt. 12 grs. = 15.725 oz.

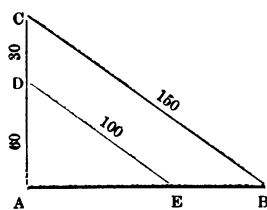
$15.725 \times 16 = \$251.60$ , and  $\$251.60 \div \$3.14\frac{1}{2} = 80$  cts. = 8000 lbs.

## REPORT OF THE SUPERINTENDENT

10 6. deep 2 qts.  
 2.  $\frac{30 \times 30 \times .785 \times 42 \times 4 \times 2 \times 11}{21} = 753 + \text{bottles.}$   
 $\frac{231 \text{ c. i. p. gal.} \times 3 \times 5}{21}$

3.  Whole circle =  $\frac{1}{2}A =$   
 21,780 sq. ft.

$\sqrt{\frac{21,780}{.785}} = 166 \text{ feet of rope} = \text{diameter.}$   
 83 feet of rope = radius.

4.   $\sqrt{150^2 - 90^2} = 120 \text{ ft.} = AB.$   
 $\sqrt{100^2 - 60^2} = 80 \text{ ft.} = AE.$   
 $120 - 80 = 40 \text{ ft.} = EB.$

5.  $46 \times \$2\frac{1}{2} = \$115, \text{ cost.}$   
 $28.75 = 25 \text{ per cent.}$   
 $40 \overline{) 143.75}$   
 $\$3.59\frac{3}{4} \text{ per gallon.}$

sq. ft. 360  
 6.  $\frac{30 \times 42,560}{121} = 10,800 \text{ front feet.}$

5  
 $\frac{30 \times \$1,800}{10,800 \times 360} = \$5.00 \text{ per front foot. Answer.}$

7.  $2\frac{1}{2} \text{ yds.} \times 2 \text{ yds.} = 90 \text{ in.} \times 72 \text{ in.} = 6,480 \text{ sq. in.}$   
 $1 \text{ yd. of ribbon} = 36 \times \frac{1}{8} \text{ in.} = \frac{9}{2} \text{ sq. in.}$   
 $6,480 \div \frac{9}{2} = 205 + \text{ yds. of ribbon. Ans.}$

8.  $\frac{4}{306} \times \frac{5}{100} \times \frac{5}{1} \times \frac{1}{20} = \frac{1}{20} \text{ Numerator.}$   
 20

$$\frac{1}{1000} \times \frac{2}{1000} \times \frac{400}{1} \times \frac{250}{1} \times \frac{1}{5} = \frac{100}{10 \times 5 \times 4} \text{ Denominator.}$$

$$\frac{1}{20} \div \frac{1}{5} = \frac{5}{20} = \frac{1}{4} \text{ Answer.}$$

9.  $150 \times 16$   
 $\frac{10}{10} = 240 \text{ cub. in. solid contents.}$

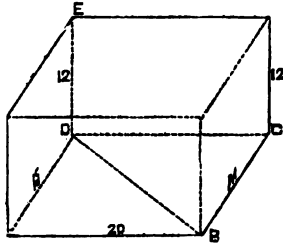
Solidity divided by area of base equals altitude or thickness.  
 $\frac{240}{36 \times .785} = 8.49 \text{ in. = thickness. Answer.}$

10. 58 gals. 2 qts. 1 pt.  $\times 2 = 117.25 \text{ gals.}$   
 Dishonest gain is 117.25 gills = 3.66 gals.  
 $3.66 \times .80 = \$2.92. \text{ Answer.}$

11.  $6.5 \times 5.5 = 35.75 \text{ sq. miles.}$   
 $\frac{3.25}{35.75} \times \frac{64}{640} = \frac{110}{110} = 208 \text{ farms. Answer.}$

12.  $\frac{24}{360} : \frac{72}{90} \left\{ \begin{array}{l} -3 \\ -5 \end{array} \right. \therefore 16 = \frac{16 \times 5}{4} = 20 \text{ men. Answer.}$

13.



$$20^2 + 16^2 = BD^2.$$

$$\sqrt{656 + 144} = 28.28 \text{ ft. = EB Ans.}$$

## GRAMMAR.

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Time, 2 hours. 10 Questions—50 Credits.

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1. To him *who* in the love of *nature* holds communion with her visible forms, she speaks a various *language*.....and she glides into his darker musings ere he is *aware*.

- (1) Gender and case of *who*?                      (2) Gender of *nature*? How shown?  
 (3) Case of *language*?                              (4) Parse *aware*.

2. Correct and give reasons (underline corrections).

- (a) I understand it to be they.  
 (b) Let you and I try it.  
 (c) I referred to my old friend, he of whom I often speak.  
 (d) Submission to the law is every Christian and citizen's duty.  
 (1 credit for corrections; 4 credits for reasons.)

3. (a) When is *as* a relative pronoun? Write a sentence illustrating.  
 (b) When is *that* a relative? Example.

4. (a) To what verbs does voice belong?  
 (b) How is the passive voice formed? Example.  
 (c) How is the progressive form made? Example.

5. When is *to* of the infinitive omitted?

6. Give principal parts of *awake*, *sit*, *rise*, *lie* (to recline), *lay*.

7. Parse underlined words in the following:

For what can we bequeath,  
 Save our deposed bodies *to* the grave?  
 Our lands and lives, and all, are *Bolingbroke's*,  
 And nothing can we call *our own* but death,  
 And that small *model* of the barren earth  
 Which serves as paste and cover to our bones.

8. Write a sentence containing a subject infinitive phrase.  
 Write a sentence containing a subject clause.  
 Write a sentence containing an attribute clause.  
 Write a sentence containing an objective clause.  
 Write a sentence containing a relative clause.

9. (a) Compare, underlining the words here given:  
       More, next, last, worst, valiant.
- (b) Give the number of the following, and name the corresponding singular and plural:  
       Kine, hero, valley, dwarf, staff.
10.     Deep in the wave is a coral grove,  
       Where the purple mullet and gold-fish rove;  
       Where the seaflower spreads its leaves of blue  
       That never are wet with the falling dew,  
       But in bright and changeful beauty shine,  
       Far down in the green and glassy brine.
- (1) Name subject and predicate, first line.  
 (2) What do the clauses beginning with "where" modify?  
 (3) Antecedent of *that*? (fourth line) and its office in the clause.  
 (4) Parse *we*.

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 GRAMMAR, ANSWERS.
 

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1. *Who*, mas. gen., nom. case to verb holds.  
*Nature*, fem. gen. by personification, as shown by pers. pronoun *she*.  
*Language*, com. noun, obj. case, object of speaks.  
*Aware*, pred. adj.; belongs to subject, he.
2. (a) I understand it to be *them*. Neutral verbs take same case after as before them; it obj. case, also *them*.  
 (b) Let you and *me* try it; *me* complement of let, therefore obj. case.  
 (c) I referred *him*, etc.. The pronoun in apposition with friends, must be in same case.  
 (d) Christian's.
3. (a) When it follows *such*, many or same, and relates to the objects thus specified.  
 (b) When *who*, *whom* or *which* can be substituted in its place.
4. (a) Voice belongs to transitive verbs only.  
 (b) Passive voice is expressed by joining some form of *to be* to the perfect participle of transitive verbs.  
 (c) Progressive form made by prefixing some form of *to be* to present participle.



5. After bid, dare, feel, hear, let, make, need, see, and sometimes have, help, please and find.

6. Awake, awoke, awaked.

Lay, laid, laid.

Sit, sat, sat.

Rise, rose, risen.

Lie, lay, lain.

7. *What*, object of bequeath.

*To*, prep. rel. obj. grave to verb bequeath.

*Bolingbroke's*, proper and possessive noun, predicate nominative of are.

*Our own*, possessive pronoun, object of call.

*Model*, object of preposition *but*.

8.

POS.	COMP.	SUP.
------	-------	------

9. Much,	More,	Most.
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Near,	Nearer,	Next.
-------	---------	-------

Late,	Later,	Last.
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Ill,	Worse,	Worst.
------	--------	--------

Good,	Better,	Best.
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10. (a) Subject, "A coral grove." Predicate, "is deep in the wave."

(b) Adjective clauses modifying *grove*.

(c) *Leaves*, antecedent of *that*; *that* subject of *are*.

(d) *Wet*, predicate adjective; modifies *that*.

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## COMPOSITION.

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Time, one hour. 30 Credits.

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1. Use similes in the following:

He flew with the swiftness of an arrow.

I heard a loud voice.

2. Punctuate the following:

A drunkard once reeled up to Whitfield with the remark: "Mr. Whitfield,

I am one of your converts." "I think it very likely," was the reply, "for I am sure you are none of God's."

3. Reconstruct:

We came to our journey's end at last, with no small difficulty, after much fatigue, through deep roads and bad weather.

4. Form sentences:

Of mind splendor under the garb of is concealed poverty.

(b) Of affectation of the young fop in the smile face impertinent air was seen.

5. Correct errors in position and punctuate:

(a) The honorable member was reproved for being intoxicated by the President.

(b) A message was read from the President in the Senate.

(c) That small man is speaking with red whiskers.

6. Change the following to prose:

"Sweet was the sound, when oft, at evening's close,  
Up yonder hill the village murmur rose.  
There, as I passed, with careless step and slow,  
The mingling notes came softened from below.  
The swain responsive as the milkmaid sung,  
The sober herd that lowed to meet the young;  
The noisy geese, that gabbled o'er the pool;  
The playful children, just let loose from school;  
The watch-dog's voice, that bayed the whispering wind,  
And the loud laugh, that spoke the vacant mind.  
These all in sweet confusion sought the shade,  
And filled each pause the nightingale had made."

15 credits.

### COMPOSITION, ANSWERS.

1. (a) He flew like an arrow.

(b) I heard a noise like thunder.

2. A drunkard once reeled up to Whitfield, with the remark, "Mr. Whitfield, I am one of your converts." "I think it very likely," was the reply, "for I am sure you are none of God's."

3. At last, with no small difficulty and after much fatigue, we came through deep roads and bad weather, to our journey's end.

4. (a) A mind of splendor is often concealed under the garb of poverty.

(b) An impertinent smile of affectation was seen in the face of the young fop.

5. (a) The honorable member was reproved by the president for being intoxicated.

(b) A message from the President was read in the Senate.

## GEOGRAPHY.

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Time, one hour and a half. 10 Questions—70 Credits.

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1. (a) What city has no latitude?  
(b) What no longitude? 7 cr.
2. What is the shortest distance, in statute miles, between two places on the equator, one in 170° east longitude, and the other in 170° west longitude? 4 cr.
3. Name the largest city on each of seven different islands. 7 cr.
4. Name five of the most important straits, what waters they connect and what lands they divide. 7 cr.
5. Name separately the empires, kingdoms, republics and colonies in North and South America. 7 cr.
6. Name the empires, kingdoms and republics in Europe. 7 cr.
7. Describe briefly the seat of war between the English and Arabs in Africa. 7 cr.
8. Name one country which largely exports one of the following products:

Petroleum,	Wool,	Coffee,
Hides,	Silks,	Guano,
Hardware,	Furs,	Wheat.

7 cr.
9. Name the four great transcontinental lines of railroad completed in the United States. 7 cr.
10. It is said that the trip around the world can be accomplished in 80 days, if close connections can be made.  
Describe in general terms the land and water routes (by rail or steamer) in making such a trip, starting from New York and traveling westward. 10 cr.

## GEOGRAPHY, ANSWERS.

1. (a) Quito.  
(b) Greenwich or London.
2.  $69.16 \text{ miles} \times 20^\circ = 1,383.20 \text{ miles}.$
3. London, in Great Britain; New York, on Manhattan Island; Yeddo, or Jeddo, in Japan; Dublin, in Ireland; Brooklyn, on Long Island; Copenhagen, on Zealand, Denmark; Havana, on Cuba; Manila, on Luzon, Philippines.
4. Gibraltar connects Atlantic Ocean with Mediterranean, and separates Spain from Morocco; Behring, Pacific with Arctic, America from Asia; Davis, Baffin's Bay with Atlantic, Greenland from Labrador; Bab-el-Mandeb, Red Sea with Gulf of Aden or Indian Ocean, Arabia from Africa; Skager Rack and Cattegat, North Sea with Baltic, Denmark from Sweden; Torres, Indian Ocean with Pacific, Australia from New Guinea.
5. Empire, Brazil. Republics—United States, Mexico, Guatemala, Costa Rica, Honduras, Nicaragua, San Salvador, Ecuador, Peru, Chili, Argentine Confederation, Paraguay, Uruguay, Bolivia and Venezuela. Colonies—Dominion of Canada, Greenland, British, Dutch and French Guiana, and Patagonia.
6. Empires—Russia, Austria, German, Turkish.  
Kingdoms—Great Britain, Spain, Portugal, Belgium, Holland, Denmark, Sweden and Norway, Italy.
7. In the Soudan, on the Upper Nile, below Khartoum, and on the deserts stretching from Suakim, on the Red Sea, to Berber on the Nile.
8. Petroleum, United States; wool, Australia; coffee, Brazil; hides, Argentine Confederation; hardware, Great Britain; silks, France; guano, Peru; furs, United States from Alaska; wheat, United States.
9. Northern Pacific, Union and Central Pacific, Atlantic and Pacific, Southern Pacific.
10. From New York to San Francisco by rail; thence by steamer to Yokohama; thence by steamer to Hongkong; through China Sea to Singapore; thence by steamer to Ceylon, and Calcutta by rail; across Arabian Sea to Red Sea; up Red Sea to Suez Canal; through canal to Mediterranean; thence by steamer to Marseilles; across France by rail to Havre; thence by steamer across Atlantic to New York.

## THEORY OF EDUCATION.

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Time, one hour. 10 Questions—50 Credits.

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1. Into what divisions may the human mind be divided?
  2. What are the principal faculties included in the intellect?
  3. In what order do the faculties of the child develop?
  4. What are the main objects of a recitation?
  5. Name some of the minor objects of a school recitation.
  6. What is the real object of all school punishment?
  7. In what order must all primary instruction proceed?
  8. How would you teach beginners to read?
  9. Into what parts should every reading lesson be divided?
  10. How would you secure and hold the attention of little children?
- 

## PENMANSHIP.

1. State briefly what position the pupil should take in writing. 5 cr.
2. What letter is the unit of measurement, and why? 5 cr.
3. Name the five elements from which the principles are formed, illustrating each.

4. Copy the following:

Thy sacred leaves, fair Freedom's flower,  
Shall ever float on dome and tower;  
To all their heavenly colors true,  
In blackening frost or crimson dew.  
And God love us as we love thee,  
Thrice holy Flower of Liberty.  
Then hail, the banner of the free,  
The starry Flower of Liberty.

15 cr.

## HISTORY.

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Time, two hours. 8 Questions—40 Credits.

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1. (a) Who was John Carver? 1 cr.  
(b) Peter Stuyvesant?  
By whom were the following States settled:  
(c) Maryland?  
(d) Pennsylvania?  
(e) Ohio? 3 cr.
2. (a) What were the Navigation Acts? 3 cr.  
(b) What was their general effect on American history? 2 cr.
3. (a) What was the Stamp Act, and when was it passed? 3 cr.  
(b) When and where did the first Colonial Congress meet? 2 cr.
4. (a) What was the Right of Search? 3 cr.  
(b) What were the Alien and Sedition laws? 2 cr.
5. What was the Missouri Compromise? 5 cr.
6. Name one important historical event that occurred during each of the following Administrations: Presidents Washington, John Adams, Madison, Jackson and Polk. 5 cr.
7. (a) How did we acquire Louisiana? Texas? 2 cr.  
(b) Name the treaty made at the close of the Mexican War. 1 cr.  
(c) State what territory the United States gained by it. 2 cr.
8. Give the following facts concerning the battle that resulted from the invasion of the North during the third year of the Civil War.  
(1) The time. (2) The place. (3) One General on each side.  
(4) General results. 5 cr.

## HISTORY, ANSWERS.

1. (a) The first Governor of Plymouth Colony.  
(b) The last and ablest of the four Dutch Governors.  
(c) By persecuted Catholics from England.  
(d) Persecuted English Quakers.  
(e) N. E. Pioneers.
2. The Navigation Acts gave England entire control of all the trade of the Colonies. All their products must be sent to England; they must bring their goods there, and all trade must be carried on in English vessels.  
(b) They produced great discontent, and were one of the causes of the Revolution.
3. (a) The Stamp Act provided that all deeds, notes, bills and other legal documents should be written on stamped paper. The British revenue officers were to furnish them at certain fixed rates. In 1765.  
(b) N. Y. City, Oct. 7, 1765.
4. England claimed the right of searching American vessels and impressing into her service all persons of English birth found on board.  
(a) Under the former, the President could expel from the country any foreigner whom he deemed injurious to the United States; under the latter, any one libeling Congress, the President or the Government could be fined or imprisoned.
5. When the admission of Missouri was proposed, a discussion arose as to whether it should be a free or a slave State. Through the efforts of Henry Clay, it was admitted as a slave State (1821), under the compromise that slavery should be prohibited in all the territories west of the Mississippi and north of parallel 36 deg. 30 min., the southern boundary of Missouri.
6. (a) Establishment of revenue to pay debt.  
(b) Seat of government removed to Washington.  
(c) War of 1812.  
(d) Nullification Act in South Carolina.  
(e) Mexican War.
7. (a) By purchase from France.  
(b) By annexation.  
(c) Guadalupe Hidalgo.  
(d) All the territory west of the Rio Grande, together with the whole of New Mexico and California.
8. July 1 to 3, 1863. (2) Gettysburg. (3) Union General Meade, Confederate General Lee. (4) Union victory that put an end to the northern invasion.

## SPELLING AND DEFINING.

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Time, one hour. 30 Credits.

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Spell and define the following:

Lorgnette,  
Entomology,  
Internecine,  
Chalybeate,  
Cynosure,

Prescience,  
Apocryphal,  
Psychology,  
Deciduous,  
Orthoepy,

Desiccated,  
Emollient,  
Fusillaninous,  
Corrugated,  
Technology.

Spell the following 80 words:

40 Credits.

Porphyry,  
Alpaca,  
Aquiline,  
Aqueduct,  
Crystalline,  
Pavilion,  
Repellent,  
Benefited,  
Mucilage,  
Colonnade,  
Eligible,  
Paraphernalia,  
Adventitious,  
Farinaceous,  
Pretentious,  
Irascible,  
Filigree,  
Detestable,  
Indelible,  
Negotiable,  
Isosceles,  
Anonymous,  
Tessellated,  
Conscientious,  
Contumacious,  
Permissible,  
Dissyllable,

Macaroni,  
Peccadillo,  
Saccharine,  
Scintillate,  
Acacia,  
Vermicelli,  
Punctilio,  
Isinglass,  
Propitious,  
Pertinacious,  
Pyrites,  
Scurrilous,  
Exhaustible,  
Exhilarate,  
Silhouette,  
Domicile,  
Separable,  
Ephemeral,  
Guillotine,  
Sassafras,  
Incorrigible,  
Irreparable,  
Metallurgy,  
Ecstasy,  
Taciturn,  
Maintenance,  
Surreptitious,

Exaggerate,  
Oscillate,  
Ventilate,  
Vacillate,  
Coruscation,  
Innocuous,  
Inoculate,  
Iridescent,  
Bilious,  
Flagitious,  
Banana,  
Orifice,  
Hypocrisy,  
Parallel,  
Assassinate,  
Sibylline,  
Aniline,  
Paralysis,  
Heinous,  
Narrative,  
Manageable,  
Intermittent,  
Lettuce,  
Sacrilege,  
Obsolescent,  
Fallible.



## ALGEBRA.

Time, two and one-half hours. 10 Questions—70 Credits.

Solve any 10 of the following 14 questions:

1. (a) Prove that  $a^0=1$ . 3 cr.  
 (b) Reduce  $\frac{x + \frac{1}{w}}{y}$  to simplest form. 4 cr.
2. (a) Divide  $x^3 + 5x + \frac{5}{x} + \frac{1}{x^3}$  by  $x + \frac{1}{x}$ . 5 cr.  
 (b) Factor  $x^2 - 13x + 42$ . 2 cr.
3. The sum of two numbers is 13, and the difference of their squares is 39. What are the numbers?
4. What number is that which, being divided by the product of its digits, is 3, and if 18 be added to it, the order of its digits will be reversed?
5. Find square root of  $4x^4 + 8ax^3 + 16ab^2x + 4a^2x^2 + 16b^2x^2 + 16b^4$
6.  $2\sqrt{8} - 7\sqrt{18} + 5\sqrt{72} - \sqrt{50} = ?$
7. What two numbers whose difference is 15, and whose product is twice the cube of the smaller?
8.  $\left. \begin{array}{l} x^2 + y^2 = 89 \\ x - y = 3 \end{array} \right\}$  Find values of  $x$  and  $y$ .
9.  $\frac{7x+16}{21} - \frac{x+8}{4x-11} = \frac{x}{3}$ . Find  $x$ .
10. Expand  $(x-y)^5$ , and show how the coefficients are obtained.
11.  $8\sqrt{\frac{3}{2}} - \frac{1}{2}\sqrt{12} + 4\sqrt{27} - 2\sqrt{\frac{3}{2}} = ?$
12. (a) Factor  $a^3 - b^3$ .  
 (b) "  $x^2 - 9x + 14$ .
13. The sum of the three digits of a number is 11; the digit in unit's place is double that in hundred's place; if 297 be added to the number, the sum is expressed by the figures of this number reversed. What is the number?
14. Three masons, A, B and C, are to build a wall; A and B jointly can build it in 12 days, B and C in 20 days, A and C in 15 days. What time would each take to do it alone?

ALGEBRA, ANSWERS.

$$1. \quad (a) \quad \left. \begin{array}{l} a^3 \div a^3 = a^{3-3} \text{ or } a^0 \\ a^3 \div a^3 = \frac{a^3}{a^3} = 1. \end{array} \right\} \text{Hence } a^0 = 1.$$

$$(b) \quad \frac{\left(x + \frac{1}{w}\right) \times w}{y \times w} = \frac{wx + 1}{wy}$$

$$2. \quad (a) \quad \begin{array}{r} x^3 + 5x + \frac{5}{x} + \frac{1}{x^3} \quad (\div) \quad \left| \quad x + \frac{1}{x} \right. \\ \hline x^3 + x \phantom{+ 4x + \frac{4}{x}} \\ \hline 4x + \frac{5}{x} \\ \phantom{4x +} \frac{4}{x} \\ 4x + \frac{4}{x} \\ \hline \phantom{4x +} \frac{1}{x} + \frac{1}{x^3} \\ \phantom{4x +} \frac{1}{x} + \frac{1}{x^3} \\ \phantom{4x +} \frac{1}{x} + \frac{1}{x^3} \\ \hline \end{array} \quad \begin{array}{l} x^2 + 4 + \frac{1}{x^2} \text{ Quotient.} \end{array}$$

$$(b) \quad x^2 - 13x + 42 = (x - 6)(x - 7).$$

3. Let  $x$  = the less number.  
 Then  $13 - x$  = the greater number.  
 $(13 - x)^2 - x^2 = 39$ .  
 $169 - 26x + x^2 - x^2 = 39$ .  
 $-26x = -130$ .  
 $x = 5$ , and  $13 - x = 8$ .

4.  $x$  = digit in 10's place.  
 $y$  = digit in unit's place.  
 $10x + y$  = number.

$$\frac{10x+y}{xy} = 3. \text{ Eq. 1. } 10x+y=3xy. \text{ Eq. 1, reduced.}$$

$$10x+y+18=10y+x. \text{ Eq. 2. } x=y-2. \text{ Eq. 2, reduced.}$$

$$10y-20+y=3y^2-6y. \text{ Eq. 3, by substituting value of } x, (y-2) \text{ in Eq. 1.}$$

$$y^2 - \frac{17}{3}y = -\frac{20}{3}. \text{ Eq. 3, reduced.}$$

$$y = \frac{17}{6} + \sqrt{-\frac{20}{3} + \frac{289}{36}} = \frac{17}{6} \pm \frac{7}{6} = 4 \text{ or } 1\frac{1}{2}.$$

$$y=4; x=y-2. \therefore x=2; 10x+y=24. \therefore 24=\text{number}$$

$$5. \sqrt{4x^4+8ax^3+4a^2x^2+16b^2x^2+16ab^2x+16b^4}$$

$$\begin{array}{r|l} 4x^2+2ax & 8ax^3+4a^2x^2 \\ & 8ax^3+4a^2x^2 \end{array}$$

Root,  $2x^2+2ax+4b^2$ .

$$\begin{array}{r|l} 4x^2+4ax+4b^2 & 16b^2x^2+16ab^2x+16b^4 \\ & 16b^2x^2+16ab^2x+16b^4 \end{array}$$

$$\begin{aligned} 6. \quad 2\sqrt{8} &= 2\sqrt{4 \times 2} = 4\sqrt{2}. \\ -7\sqrt{18} &= -7\sqrt{9 \times 2} = -21\sqrt{2}. \\ 5\sqrt{72} &= 5\sqrt{36 \times 2} = 30\sqrt{2}. \\ -\sqrt{50} &= -\sqrt{25 \times 2} = -5\sqrt{2}. \\ &8\sqrt{2}. \end{aligned}$$

$$\begin{aligned} 7. \quad x &= \text{less number. } x+15 = \text{greater number.} \\ 2x^3 &= x^2+15x. \text{ Eq. 1.} \\ 2x^2 &= x+15. \text{ Eq. 2.} \end{aligned}$$

$$x^2 - \frac{1}{2}x = -\frac{15}{2} \text{ Eq. reduced.}$$

Completing square:

$$x^2 - \frac{1}{2}x + \frac{1}{16} = \frac{15}{2} + \frac{1}{16} = \frac{121}{16} \text{ Eq. 3.}$$

Extracting the square root:

$$x - \frac{1}{4} = \pm \frac{11}{4}; x = \frac{12}{4} = 3 \text{ or } -\frac{10}{4} = -2\frac{1}{2}. \quad x+15=18.$$

$$\therefore 3 \text{ or } -2\frac{1}{2} = \text{less number; } 18 \text{ or } 12\frac{1}{2} = \text{greater number.}$$

8.  $x^2 + y^2 = 89$ . A.  
 $x - y = 3$ . B.  
 $x = 3 + y$ ;  $x^2 = 9 + 6y + y^2$ .  
 $9 + 6y + y^2 + y^2 = 89$ . (1)  
 $y^2 + 3y = 40$ . (2)

$$y = -\frac{3}{2} \pm \sqrt{40 + \frac{9}{4}} = -\frac{3}{2} \pm \frac{13}{2} = -8 \text{ or } 5.$$

$x - y = 3$ ;  $x = y + 3 = 5$ , or  $-8$ ,  $+3 = 8$  or  $-5$ .  
 $x = 8$ ;  $y = 5$ , numbers.

9.  $\frac{7x+16}{21} - \frac{x+8}{4x-11} = \frac{x}{3}$  (1)

Clear of monomial denominators:

$$7x+16 - \frac{21x+168}{4x-11} = 7x \quad (2)$$

$$64x = 176 - 21x - 168 = 0 \quad (3)$$

$$43x = 344 \quad (4)$$

$$x = 8.$$

10.  $(x-y)^5 = x^5 - 5x^4y + 10x^3y^2 - 10x^2y^3 + 5xy^4 - y^5$ .

First coefficient = 1. Second coefficient = index power of leading letter. Third coefficient =  $\frac{1}{2}$  of second coefficient into index of leading letter =  $\frac{1}{2}$  of  $5 \times 4 = 10$ . Fourth coefficient, etc.

$$\begin{aligned} 11. \quad 8\sqrt{\frac{3}{4}} &= 8\sqrt{\frac{1}{4}} \times \sqrt{3} = 4\sqrt{3} \\ -\frac{1}{2}\sqrt{12} &= -\frac{1}{2}\sqrt{4} \times \sqrt{3} = -\sqrt{3} \\ 4\sqrt{27} &= 4\sqrt{9} \times \sqrt{3} = 12\sqrt{3} \\ -2\sqrt{\frac{3}{8}} &= -2\sqrt{\frac{1}{8}} \times \sqrt{3} = -\frac{1}{2}\sqrt{3} \\ &\quad \underline{14\frac{1}{2}\sqrt{3}} \end{aligned}$$

12. (a)  $a^5 - b^5 = (a^4 + b^4)(a^2 + b^2)(a + b)(a - b)$

(b)  $x^2 - 9 + 14 = (x-7)(x-2)$ .

13.  $x = \text{digit in } 100\text{'s place.}$

$y = \text{digit in } 10\text{'s place.}$

$z = \text{digit in unit's place.}$

$x + y + z = 11$ . (1)

$z = 2x$ . (2)  $\therefore 3x + y = 11$ . (3)

$100x + 10y + z = \text{number.}$

$$100x + 10y + z + 297 = 100z + 10y + x. \quad (4)$$

$$99x - 99z = -297. \quad (5)$$

$$x - z = -3. \quad (6)$$

$$z = 3 + x. \quad (7)$$

$$\text{Comp. Equations (7) and (2): } 2x = 3 + x. \quad \therefore x = 3.$$

$$z = 2x. \quad \therefore z = 6. \quad y = 11 - 6 - 3 = 2.$$

$$100x + 10y + z = 326, \text{ the number.}$$

$$\begin{array}{lcl}
 14. & x = \text{days required for A} & \left. \begin{array}{l} 20 \text{ days.} \\ 30 \text{ days.} \\ 60 \text{ days.} \end{array} \right\} \\
 & y = \text{days required for B} & \\
 & z = \text{days required for C} &
 \end{array}$$

$$\begin{array}{r}
 1 \quad 1 \quad 1 \\
 - + - = - \\
 x \quad y \quad 12
 \end{array} \quad (1)$$

$$\begin{array}{r}
 1 \quad 1 \quad 1 \\
 - + - = - \\
 y \quad z \quad 20
 \end{array} \quad (2)$$

$$\begin{array}{r}
 1 \quad 1 \quad 1 \\
 - + - = - \\
 x \quad z \quad 15
 \end{array} \quad (3)$$

Subtract Eq. (3) from Eq. (1).

$$\begin{array}{r}
 1 \quad 1 \quad 1 \\
 - - - = - \\
 y \quad z \quad 60
 \end{array} \quad (4) \quad \text{Add Eqs. 4 and 2.}$$

$$\begin{array}{r}
 1 \quad 1 \quad 1 \\
 - + - = - \\
 y \quad z \quad 20
 \end{array} \quad (2)$$

$$\begin{array}{r}
 2 \quad 1 \\
 - = - \\
 y \quad 15
 \end{array} \quad (5) \quad y = 30 \text{ days for B.}$$

$$\begin{array}{r}
 1 \quad 1 \quad 1 \\
 - + - = - \\
 x \quad 30 \quad 12
 \end{array} \quad x = 20 \text{ days for A.}$$

$$\begin{array}{r}
 1 \quad 1 \quad 1 \\
 - - + = - \\
 30 \quad z \quad 20
 \end{array} \quad z = 60 \text{ days for C.}$$

## PHYSICS.

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Time, one hour. 10 Questions—50 Credits.

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Select 10 out of the following 12 Questions:

1. Define the terms Molecule, Atom.
2. What is meant by physical changes of matter? By chemical changes?
3. Name and define the three great forces which are essential to the constitution of the universe.
4. When is a body said to be in equilibrium? In stable equilibrium?
5. Illustrate how the center of gravity of a solid may be found.
6. To what is the weight of bodies due? What is meant by specific gravity?
7. In what proportion does gravity act on all bodies?
8. What is the difference between velocity and momentum?
9. (a) What is necessary for the transmission of sound?  
(b) How fast does sound travel?
10. Define and explain "Mirage."
11. Show that the earth acts like a magnet.
12. Mention three practical uses to which electrical force is put.

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PHYSIOLOGY.

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Time, one hour. 10 Questions—70 Credits.

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1. (1) Describe the motor and the sensory nerves, and explain the functions of each. 2 cr.  
(2) What is the principal function of the bones in relation to the nervous system? 2 cr.
- (3) What is mucous membrane? 3 cr.
2. (1) What enables us to stand upright? 3 cr.  
(2) How are the muscles joined to the bones? 4 cr.
3. Name in their order the organs and the juices employed in the digestion of food. 7 cr.
4. Describe the general circulation of the blood beginning at the right auricle. 7 cr.

5. Define: (1) Pericordium, (2) Serum, (3) Lacteals, (4) Larynx, (5) Iris, (6) Scapula, (7) Veins and arteries. 7 cr.
6. (1) What is the influence of animal food upon the blood? 2 cr.  
 (2) What is the influence of vegetable food on the blood? 2 cr.  
 (3) What is the function of the blood? 3 cr.
7. (1) What three organs assist in purifying the blood? 3 cr.  
 (2) Why is it necessary to bathe the whole body often? 2 cr.  
 (3) Why is it necessary to breathe pure air? 2 cr.
8. (1) Name two common disinfectants. 2 cr.  
 (2) What is commonly used to purify water? 1 cr.  
 (3) Name four diseases caused by impure air and impure water. 4 cr.
9. (1) Name four organs injured by compressing the waist. 4 cr.  
 (2) Name three diseases incident to compressing the waist. 3 cr.
10. (1) What is the function of the Eustachian tube? 1 cr.  
 (2) Name the coats or membranes of the eye. 3 cr.  
 (3) Name the humors or mediums of the eye. 3 cr.

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#### SPENCER ON EDUCATION.

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Time, one hour and a half. 6 Questions—60 Credits.

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1. (a) For what is science of chiefest importance, and why?  
 (b) Mention two reasons showing the importance of a knowledge of science.
2. (a) What knowledge is essential as a means of complete living?  
 (b) What sciences have direct bearing upon mechanic arts and gaining a livelihood?
3. (a) Why is the rote system of teaching objectionable?  
 (b) What other system is open to similar criticisms?
4. Why are the efforts to make early education amusing, and all education interesting, preferable to the former methods of rote teaching, etc?
5. (a) What do penalties naturally following the violation of law, the inevitable consequences of wrong conduct, teach, and what is the result?  
 (b) What is the result of punishing a child in anger?
6. (a) What is the inevitable result, if your displeasure is too long in duration.  
 (b) What should be the aim of all discipline?

## SPENCER ON EDUCATION—ANSWERS.

1. (a) For discipline and for guidance; because learning the meaning of *things* is better than learning the meaning of words.  
(b)
  1. For the maintenance of life and health.
  2. For gaining a livelihood.
  3. For the proper discharge of parental functions.
  4. For that proper discharge of national life without which the citizen cannot rightfully regulate his conduct.
  5. For the most perfect production and highest enjoyment of art in all its forms.
  6. For the purposes of discipline (intellectual, moral and religious.)  
(Any 2 of the 6.)
2. (a) A knowledge of Physiology, an acquaintance with our own bodies and the laws governing the same.  
(b) Physics, Mathematics and Chemistry.
3. (a) Because much time and labor is spent in committing to memory, without a clear understanding of what is learned. The child must first be made to see and understand what we wish him to know; then the matter of memorizing is very easy.  
(b) Rule teaching.
4. Because thus we create an appetite for the knowledge given and a desire to know more; an eagerness for new lessons, etc., because the acquirement is pleasurable.
5. (a) They teach self-restraint, thus strengthening the moral powers.  
(b) The anger of the child is aroused, and instead of seeing the justice of the punishment, he is hardened, and is quite ready to repeat the offense.
6. The child becomes accustomed to do without our friendship, and so our influence is lost.  
(b) To teach the child self-government.



## DRAWING.

## 5 Questions—20 Credits.

1. (a) Tell how you would direct the eye in drawing a line to a given point. 2 cr.
- (b) How in tracing a line? 2 cr.
2. (a) Name the kinds of straight lines. 3 cr.
- (b) Draw a broken line. 1 cr.
3. Give directions for holding the pencil. 4 cr.
4. (a) Show that you understand horizontal repetition. 2 cr.
- (b) Draw the Greek Cross. 2 cr.
5. How would you begin instruction in free-hand drawing? Illustrate by the formation of (1) a quadrilateral, (2) of a hexagon.

## BOOK-KEEPING.

## 5 Questions—50 Credits.

1. Explain the difference between Single and Double Entry Book-keeping. 5 cr.
2. What is meant by journalizing, and what is the use of the journal? 4 cr.
3. Define the following terms used in Book-keeping: Invoice, Creditor, Draft, Inventory, Ledger, Bills Receivable, Balance. 7 cr.
4. What is expressed by the Debtor side of Loss and Gain. By the Creditor side of Stock account? 4 cr.
5. Take the following transactions and (1) journalize them (10 cr.); (2) Post (10 cr.); (3) Close the Ledger and prepare a Balance Sheet (10 cr.).
  1. Henry Brown commences business with a cash capital of \$5,000.
  2. He expends \$200 for store fixtures and \$100 for rent.
  3. He buys merchandise for \$3,000, paying \$2,000 cash and his note at 30 days for the balance.
  4. He sells merchandise to George Browning for \$1,000, receiving \$500 cash and note at 20 days for balance.
  5. Merchandise inventory, \$2,250. 10 cr.

## BOOK-KEEPING FOR SPECIAL CERTIFICATES.

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Time, three hours.

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1. What are the advantages of Double Entry as compared with Single Entry Book-keeping? 4 cr.
2. What are Representative Accounts? Real Accounts? 4 cr.
3. What is shown by the Credit side of Discount Account? By the Debit side of Bills Payable? 4 cr.
4. What is meant by Sundries? 4 cr.
5. Journalize the following: Merchandise for \$1,000, bought of Murphy, Grant & Co. on our note at 60 days, is consigned to G. Price & Co., Oakland, to be sold on joint account of ourselves, the consignees and Henry Brown; \$50 freight is paid on said consignment. 4 cr.
6. January 1, 1885, Balance Sheet as follows:
 

Cash..... \$2,000	Bills Payable..... \$1,000
Merchandise..... 2,500	Henry Brown ..... 2,000
Bills Receivable.... 500	Stock. .... 2,500
John Doe ..... 300	
R. Roe..... 200	

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Re-open Ledger, and continue business as follows:

1. I discount my note of \$1,000; discount  $1\frac{1}{2}$  per cent off.
  2. Sell merchandise to Henry Jones for \$1,000, receiving cash \$500, sight draft on Henry Jones for balance.
  3. The note of \$500 due me is paid with \$2 50 interest.
  4. I sell merchandise for cash for \$800.
  5. I give Henry Brown sight drafts on J. Doe and R. Roe for the amount they owe me, and pay him cash to balance account.
  6. I send merchandise to amount of \$500 to William Johnson & Co., Sacramento, to sell on my account and risk, and pay \$20 freight on same.
  7. I draw \$200 on my personal account.
  8. Wm. Johnson & Co. notify me that they have sold merchandise consigned to them for \$600, the commission on which is \$10; balance subject to my order.
  9. Close books. Merchandise Inventory, \$800.
- Give complete balance sheet of above business.

## COMMERCIAL ARITHMETIC.

## FOR SPECIAL CERTIFICATES IN BOOK-KEEPING.

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Time, two hours.

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1. Exchange being  $\frac{1}{4}$  per cent premium, what is the cost of a 90 days' bill on Paris for 5,000 francs, the par value of a franc being 18c, and money being worth 6 per cent per annum?

2. A note dated May 27, 1884, for \$200 at 90 days, with interest at 10 per cent per annum, is discounted July 1, 1884, at  $1\frac{1}{4}$  per cent per month. What are the proceeds?

3. Find amount and equated time of the following:

January 19, 1885, \$200 due in 3 months, with interest at 1 per cent per month.

February 12, 1885, \$300 due in 2 months, with interest at 9 per cent per annum.

March 27, 1885, \$500, due in 4 months, with interest at 6 per cent per annum.

4. If \$500, placed at interest for 1 year 2 months 20 days, at  $\frac{7}{8}$  per cent per month will produce \$120, in what time, at 10 per cent per annum, will \$800 produce \$640?

5. A pays B \$230 as the present value of \$300 due in 5 years. Which gains by the payment, and how much, if interest is reckoned at 5 per cent per annum?

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ANSWERS.

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1. \$887.625.
2. \$200.30.
3. \$1,020.50; June 5, 1885.
4. 4 years 3 months 10 days.
5. \$10.00.

## ORAL ARITHMETIC.

20 Questions—50 Credits.

Each question to be read twice; one minute allowed for the solution, and the answer to be written at the tap of the bell.

	ANSWER.
1. Add 17, 8, 9, 6, 7, 9, 11, 13, 22.	102
2. A and B do some work in 6 days. A does $\frac{3}{4}$ as much as B. In what time will each do the work?	A 14d. B $10\frac{1}{2}$ d.
3. A does some work in 2 days which B does in 4. In what time will they do the work together?	$1\frac{1}{2}$ d.
4. What time is it when the time past noon is $\frac{1}{2}$ of the time to midnight?	4 P. M.
5. At \$3 per ream, what are $2\frac{1}{2}$ quires of paper worth?	$37\frac{1}{2}$ c.
6. At \$10 per ton, what is the cost of 3 cwt. of coal?	\$1 50
7. What is $\frac{3}{4}$ per cent of \$800?	\$6 00
8. If 10 yards of cloth cost \$70, at what must I sell it per yard to gain 20 per cent?	\$8 40
9. \$600 is 400 per cent of what number?	\$150
10. What per cent of 2,500 is $12\frac{1}{4}$ ?	$1\frac{1}{2}$ p. c.
11. San Francisco is 120 deg. west longitude, and Sacramento is 120 deg. west. What is the difference in time between them?	8 min.
12. What is the difference in longitude between two places where the difference in time is 3 hours?	45 deg.
13. A man buys an article for \$1 and sells it for \$100. What per cent. does he gain?	9900 p. c.

14. A man buys an article for \$100 and sells it for \$1. What per cent does he lose?	99 p. c.
15. At what price must an article be marked to gain 20 per cent on the cost, and yet abate 25 per cent from marked price?	\$1 60
16. What is the interest on \$75 for 2 years 6 months at 6 per cent per annum?	\$11 25
17. What is the commission on \$16,000, at $\frac{1}{8}$ per cent?	\$20
18. At what rate will \$300 produce \$120 in four years?	10 p. c.
19. What is the ratio of 3 quarts to 2 gills?	12-1
20. In what time will \$400, at 5 per cent per annum, amount to \$600?	10 yrs.

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### PHYSICAL GEOGRAPHY.

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#### ORAL.

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10 Questions.—30 Credits.

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1. What movements have oceanic waters?
2. By what are tides caused?
3. What is climate, and upon what does it depend?
4. What are isothermal lines?
5. In what zones of climate, isothermally, is California?
6. What are the Monsoons?
7. Name the races of mankind, and tell where each race seems to be indigenous.
8. Which sides of the continents have the more equable climate, and why?
9. What is the Sargasso Sea?
10. Name some of the important vegetable productions peculiar to the Torrid Zone. To the Temperate. To the Frigid.

## ORAL GRAMMAR.

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 20 Questions—40 Credits.
 

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Each question to be read twice; one minute to be allowed for its solution;  
the answer to be written at the tap of the bell.

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1. They sailed down the river. What part of speech is *down*?
  2. Give the third person singular of *them*.
  3. Give the plural of *miasma*.
  4. Give the plural of *Ottoman*.
  5. Give the plural of *Turcoman*.
  6. Give the opposite gender of *doe*.
  7. Give the opposite gender of *steer*.
  8. Give the plural of *valley*.
  9. Give the possessive plural of *Wells, Fargo & Co.*
  10. Give the third singular, Potential, past, passive of *seek*.
  11. Give the first plural, Subjunctive, present, progressive of *work*.
  12. "Trust no future, howe'er pleasant;  
Let the dead past bury its dead.  
Act, act in the living present,  
Heart within and God o'erhead."
- What kind of sentence is this stanza?
13. Tell the number of clauses.
  14. What does *pleasant* modify?
  15. What part of speech is *howe'er*?
  16. What is the case of *past*?
  17. What is the mood and tense of *bury*?
  18. What does *within* modify?
  19. What is the case of *God*?
  20. What part of speech is *o'erhead*?

## GRAMMAIRE FRANÇAISE.

## FOR SPECIAL CERTIFICATES.

1. (a) Mettez au féminin: Cet homme loyal; l'écolier attentif; le bienfaiteur généreux; un voleur audacieux.  
(b) Écrivez au pluriel: Mal, cheval, chose, éventail, carnaval.
2. (a) Quand emploie-t-on les mots ci et là?  
(b) Montrez la différence entre ces et ses.
3. Corrigez et donnez les règles (a) et (b):  
(a) Donnez un peu de l'eau.  
(b) J'aime mes frère et mère.  
(c) Soyez vrai et nos moux n'accuseront que nous-même. (Corrigez.)
4. (a) Combien de conjugaisons y-a-t-il?  
Nommez un verbe régulier de chaque conjugaison, et un verbe irrégulier.
5. (a) Conjuguez le futur de l'indicatif du verbe envoyer.  
(b) Donnez la troisième singulier des temps simples des verbes venir, devoir, falloir, être, ouvrir.
6. Écrivez la règle sur l'accord du participe passé avec le mot auquel il se rapporte.
7. Traduisez en français:
  - (1) To-day it is fine weather.
  - (2) Who is there? It is I.
  - (3) I have the letter which you have written.
  - (4) I have written two letters.
  - (5) This letter is well written.
  - (6) My hands are cold.
  - (7) She looks well.
  - (8) Can I see you?
8. (a) Quel est le pluriel des noms ciel, œil?  
(b) Comment formez-vous le pluriel des noms en al, ail, etc? Donnez deux exceptions de cette règle.

9. Mettez les articles devant les substantifs suivant pour indiquer le genre: Domicile, l'église, désir, légume, vue, cri, voix, nuit, vin.

10. Mettez les verbes suivants à la personne et au temps indiqués:

1re per. sing. indicatif pres. et imparfait, sa rapaïcher.

3me per. sing. pas. dif. et conditionnel pres., se rompre.

3me per. sing. subj. imparfait et pas. def., se mordre.

### TRANSLATE INTO FRENCH.

#### AN ENGLISH MÆCENAS.

Spencer, a famous English poet, was introduced one day into the house of Sir Philip Sydney, with whom he was not acquainted, holding in his hand a copy of one of his poems. They took the copy to the Knight. The latter took it, read it, and, struck with the beauty of the verse, he showed the most intense delight in the discovery of so new and so rare a genius. He read passionately a few stanzas, and, turning towards his attendant, said: "Give the author of these verses £50." He continued his reading, and, impressed still more by a new stanza, cried, "Double the sum!" The astonished attendant deferred executing his master's order. Sydney continued to read, his liberality grew with his admiration. "I give," said he, "£200," and, pushing the attendant by the shoulder: "Quick, quick, and immediately; for if I read more, I shall be tempted to give all my estate."

### GERMAN GRAMMAR.

#### FOR SPECIAL CERTIFICATES.

1. Decline: Das kleinste Thier; Ein treuer Freund; Diese schöne Blume; Die merkwürdige Liebe; Des opitzige Dom.
2. Pluralize with article: Grad, Vermügen; Berg; Muskel; Luise.
3. Principal parts of: Backen; fahren; greifen; lesen; nennen.
4. Synopsis in first plural, subj. passive, *loben*.  
Synopsis in third sing., indic. active, *abschreiben*.
5. Give the gen. sing. of *Zelt*. Dat. plural, *Kirchhof*.  
Acc. sing. *Gehalt*. Nom. plural, *Ort*. Gen. plur. *Qual*.



6. Name 3 prepositions governing the Genitive.  
Name 3 prepositions governing the Dative.  
Name 4 prepositions governing the Accusative.
7. Name 4 adjectives governing the Genitive without a preposition.  
Name 3 adjectives governing the Dative without a preposition.  
Name 3 adjectives governing the Accusative without a preposition.

8. Analyze:

Willst, o Sterblicher, due das Meer des gefährlichen Lebens,  
Froh *durchschiffen* und froh lauden in Hafen *der einst*?  
Lass, wenn Winde der Henscheln, dich nicht vom Stolze *besiegen*;  
Lass, wenn Sturm dich ergreift, nimmer *der* rauben den Muth.  
Männliche Tugend sei dein Ruder, der Anker, die Hoffnung;  
Wechselnd bringen sie dich durch die gefahren aus Land.

9. Parse italicised words in No. 8.

10. Translate:

For this purpose we need money.  
The love of glory animated him.  
Beware of him.  
The one with golden locks, the other gray-haired.  
The hour is up.

## NAMES OF GRADUATES.

MAY, 1885.

## BOYS' HIGH SCHOOL.

## CLASSICAL COURSE.

Clark, C. B.  
Cordes, H. J.  
Craig, W. T.  
Delvalle, J. I.  
Haley, J. U.  
Hanley, C. P.

Hooper, A. C.  
Houston, F.  
Lazarus, A.  
Lermen, J. J.  
Murphy, F. D. A.  
Ross, F.

Swift, E. D.  
Theisen, S. J.  
Trautner, R. E. F.  
Van Wyck, S. M., Jr.  
Waizman, F. J.  
Wolf, J.

## LATIN COURSE.

Brewer, J. M.  
Durbrow, C. J.  
Erlanger, S.  
Grunbaum, M. L.

Haskin, J. R.  
Hollis, W. H.  
Jackson, G. H. T.

Landon, F. P.  
Painter, A.  
Topliz, M. P.

## ENGLISH COURSE.

Batten, J. B.  
Brosnan, J. A.  
Chenery, L. E.  
Cook, L.  
Ephraim, J. A.  
Gerstle, W.  
Gove, J. H.  
Grundel, H.  
Holmes, C. E.  
Jory, H. J.  
Keesing, W. H.

Kincaid, G. F.  
Lastreto, E. R.  
Lenfestey, G. K.  
Martin, F. M.  
McDougall, G. B.  
McFarlan, A. C.  
Meyer, S.  
Neppert, G. P.  
Newmark, S.  
Noble, C. A.

Peixotto, E. D.  
Roeding, G. C.  
Rottanzl, T. A.  
Sachs, H.  
Schwartz, S.  
Sinclair, L.  
Sinclair, N.  
Waterman, W. B.  
Wharf, F. L.  
Widber, A. C.

## GIRLS' HIGH SCHOOL.

Altshuler, Hannah J.  
 Bailey, Clara B.  
 Barber, Charlotta C.  
 Barenkamp, Daisy Dell  
 Bateman, Josephine  
 Beeman, Mattie Irene  
 Bienenfeld, Celia  
 Bigley, Ella F.  
 Blethen, Mamie A.  
 Boukofsky, Rose  
 Bowen, Carreno L.  
 Broderick, Nellie L.  
 Broderick, Eleanor D.  
 Bragg, Ethel A.  
 Brown, Hattie  
 Browne, Laura M.  
 Bruce, Viola  
 Buckley, Mabel H.  
 Bugbee, Bessie Eldredge  
 Buneman, Matilda G.  
 Burke, Catherine D.  
 Byers, Annie E.  
 Carlson, Hilda Mina  
 Carr, Nellie T.  
 Case, Martha S.  
 Cashin, Lillie C.  
 Church, Lillie L.  
 Claiborne, Rosa V.  
 Coffin, Laura B.  
 Cole, Augusta W.  
 Collins, Addie L.  
 Corde, Bertha Jean  
 Cox, Arthurlena H. S.  
 Crouch, Sadie F.  
 Croyland, Belle  
 Croyland, Carrie M.  
 Crowell, Irene  
 Cummings, M. Elizzie  
 Dabovich, Melia M.  
 Daniel, Laura  
 De Lamater, G. May  
 Deming, Mary E.  
 Devine, Genevieve E.  
 Devine, Mary Ella  
 Dodge, Kate Freeman  
 Downing, Ada A.  
 Doyle, Maggie E.  
 Drews, Carrie S.  
 Driscoll, Emma J.  
 Druffel, Fannie Oneida  
 Dunbar, Florence May  
 Dunn, Mary  
 Durham, Lizzie Loretta  
 Dusenbury, Julia

Dutton, Hettie B.  
 Ellerhorst, Dorothea E.  
 Elliott, Elizabeth L.  
 Emanuel, Julia  
 Fairman, Madge Beebee  
 Falk, Ernestine  
 Fechheimer, Rose F.  
 Fitzpatrick, Mary E.  
 Fleishhacker, Belle Claire  
 Flynn, Mary E.  
 French, Ida B.  
 French, May Evelyn  
 Forsythe, Lila A.  
 Gallagher, Janey M.  
 Gallagher, Nellie G.  
 Goldsmith, Delphine  
 Gormley, Katie Gray  
 Goss, Sarah F.  
 Green, Jessie Adelaide  
 Greenham, Elizabeth M.  
 Hagedorn, Anna C.  
 Hatch, Lida E. F.  
 Harrold, Veronica M.  
 Heald, Emilie J.  
 Heick, Magda C.  
 Hentrich, Bernardine J.  
 Hill, Clara  
 Hobart, Pearl Margaret  
 Hobe, Anna E.  
 Hopkins, Leoline C.  
 Howard, Lulu Louise  
 Hughes, Zoe E.  
 Hurley, Mary  
 Hunt, Lisette Marie  
 Hyde, Mary F.  
 Hyman, Emma  
 Jacobs, Carrie  
 Jensen, Ettie Genevieve  
 Jolliffe, Harriet Howard  
 Jones, Lillie  
 Jones, Mary J.  
 Kahn, Mary R.  
 Kalisher, Amalia  
 Kearns, Ella R.  
 Kelly, Elizabeth E.  
 Kelly, Kate  
 Kelly, Maggie F.  
 Ladd, Katie R.  
 Lamb, Sophia A.  
 Lawless, Agnes J.  
 Levy, Rebecca C.  
 Lewis, Annie  
 Lichtenberg, Rosalie  
 Lichtenstein, Frances

Lichtenstein, Rachel E.  
 Love, Annie A.  
 Maxwell, Catherine A.  
 May, Lizzie  
 McCullough, Marie L.  
 McDonough, Catherine F.  
 McKee, Eva M.  
 McLean, Ida Louise  
 McQuade, Katie Gustina  
 McVerry, Katie A.  
 McGill, Mary  
 Miller, Frances L.  
 Miller, Mamie Scobie  
 Monson, Lillian Ward  
 Moran, Louise A. L.  
 Mugan, Mary Stuart  
 Murphy, Annette M.  
 Neumann, Elizabeth M.  
 Nolan, Cecilia B.  
 O'Brien, Nora  
 O'Kane, Ella Rose  
 Onyon, Emma J.  
 Page, Mary Swann  
 Peiser, Bertha  
 Pendleton, Florence Beebee  
 Pendleton, Lillie Eugene  
 Phelan, Annie L.  
 Pragg, Hattie  
 Prior, M. Matilda  
 Randolph, Abbie H.  
 Reddy, Maggie A.  
 Rightmire, Jessie A.  
 Riordan, Minnie  
 Rogers, Aphra  
 Samuels, Sadie F.  
 Samuels, Sarah  
 Schmidt, Selma  
 Schweitzer, Cora M.  
 Seeligsohn, Rose  
 Selleck, Mattie Estelle  
 Shapero, Hattie E.  
 Sheldon, Jennie May  
 Shepard, Grace S.  
 Smith, Florence  
 Smithson, Lulu  
 Snook, Anita Adele  
 Somers, Mae  
 Squire, Gertrude E.  
 Stone, May  
 Strachan, Allie F.  
 Strauss, Emma B.  
 Swayne, Helen M.  
 Sweigert, Mary E.  
 Taylor, Gineay Fowler.

# OF COMMON SCHOOLS.

227

Taylor, Maude Eloise  
Thomas, Kate Agnes  
Thomson, Alice M.  
Todd, Eva F.  
Usher, Mamie V.

Van Den Berg, Jefferita D.  
Veeder, Angie S.  
Warren, Lydia Marcelle  
Waterman, Eugenie J.  
Wertheimer, Theresa G.  
Whitney, Nellie Sumner

Wilson, Fannie Lauretta  
Wood, Annie Miller  
Wood, Maude M.  
Worley, Minnie Greenstreet  
Zekind, Theresa

## NORMAL DEPARTMENT.

Adams, Idella M.  
Amos, Fannie  
Axford, Minnie  
Bartlett, Finnie  
Bergson, Lena A.  
Bloom, Celia  
Bretz, Bertha M.  
Broadfield, Daisy  
Bryan, Lillie A.  
Brown, Mary L.  
Burnett, Rita  
Casey, Mary  
Clark, A. W.  
Conlon, Helen D.  
Cohen, Esther  
Cusheen, Lillie A.  
Daniel, May W.  
Dennis, Lizzie  
Donahue, Johanna  
Doud, Mary  
Downey, Mary L.

Ellis, Marce  
Fiala, Ada  
Fay, Katie  
Meming, Annie M.  
Frapolli, Adele  
Gould, Lucy  
Greenhood, Fannie  
Gregg, Lottie  
Grote, Sophie A.  
Harvey, Mary A.  
Highfield, Hattie  
Holland, Julia A.  
Hunter, Isabel  
Hodgkinson, Frank.  
Jewett, Susie M.  
Kalmuk, Lillie  
Kinney, Lizzie M.  
Lahaney, Maggie  
Laidley, Lulu B.  
Lebatard, Adelina R.  
Martin, Eleanor L.

Marks, Bertha R.  
Meeker, Charlotte L.  
Mello, Becky C.  
McGauley, Julia C.  
McTamney, Martha  
Monthrop, Annie  
Moulthrop, Emma  
Nunan, Kate  
Otto, Lottie C.  
Paul, Florence K.  
Poppe, Martha H.  
Pyne, Mary E.  
Rutherford, Helen  
Scheler, Rose  
Simmons, Lillie  
Smith, Adelaide M.  
Stolz, Rose  
Stone, Eva  
Walcott, Minnie J.  
Wulffing, Frances

## BROADWAY GRAMMAR SCHOOL.

Estelle Baker,  
Elida Bildt,  
Clara F. Burress,  
Amalia Citron,  
Alice L. Chase,  
Mary G. Costa,  
Mamie Dabovich,  
Mary E. Doherty,  
Gabrielle M. Durand,  
Katie F. Finkenstedt,  
Estelle Frank,  
May Galloway,

Mary T. Gleason,  
Mary D. Graves,  
May E. Harrold,  
Maude E. Jones,  
Lila M. Lang,  
Elodia J. Liberty,  
Mary Lyons,  
Josie M. Marino,  
Abbie Meehan,  
Celeste Meek,  
Alice M. Mooser,  
Julia C. McDevitt,

Carrie L. Mette,  
Anna Nelson,  
Florence R. Reed,  
Marguerite A. Reilley,  
Louise M. Rittori,  
Margaret Roach,  
Carrie Schenck,  
Rose A. Silva,  
Alice G. Sheridan,  
Sophie L. Walter,  
Fannie Bancroft Wardwell,  
Helena A. Young.

## REPORT OF THE SUPERINTENDENT

## CLEMENT GRAMMAR SCHOOL.

Eveline Levison,  
 Mary V. Cronin,  
 Hattie Scheideman,  
 Robert D. Cohn,  
 May Callahan,  
 Adele Aronstein,  
 Laura L. Johnson,  
 Mabel R. Highfield,  
 Oliver A. Harker,  
 Annie F. O'Neil,  
 Josie Leszynsky,  
 Emma C. Duncan,  
 Frederika C. Stockmeyer,  
 Theresa Ash,  
 Edward T. Houghton,  
 Melville S. Badt,

Marionita E. Earle,  
 Marion D. Cohn,  
 Annie N. Clark,  
 Lillie Reinstein,  
 Josie Kennedy,  
 Mollie T. McDonnell,  
 Archibald Thomson,  
 Maria B. Margo,  
 Frank Howlett,  
 Ida L. Kline,  
 Louis Samuels,  
 Susie Haas,  
 Louis S. Crowley,  
 Lillian Morris,  
 Ollie D. Clark,  
 Hattie Levison,  
 Dolly D. Brown,

Mamie F. Kelly,  
 Hattie Morris,  
 Maude M. Howe,  
 Janet B. Hopps,  
 Flora S. Fisher,  
 Edgar A. Carolan,  
 Frank E. Batturs,  
 Daniel Goodman,  
 Lillie E. Callahan,  
 Ida M. Hayes,  
 Howard N. Harron,  
 William J. Brady,  
 John W. Pedler,  
 Charles Jackson,  
 Marshal J. Morgan,  
 Alexander R. Imbrie.

## COLUMBIA GRAMMAR SCHOOL.

Theresa R. M. Armstrong,  
 Lena Blumenthal,  
 Katie C. Bannon,  
 Emma Connor,

Joseph L. Hackett,  
 Elsie M. Iverson,  
 George C. Jacobsen,  
 William Lohmeyer,  
 Nettie McIntosh,

Minnie C. Renlein,  
 Charlotte E. Seidel,  
 Alice A. Van Dyne,  
 Amelia E. Wanz.

## COMMERCIAL HIGH SCHOOL.

## BOYS.

Eugene Bresse,  
 Martin Cline,  
 Jacob Cohen,  
 James Devoto,  
 John C. Doherty,  
 Joseph A. Dougherty,  
 Henry A. Elwert,  
 David Franklin,  
 Benjamin Garren,  
 Berthold Goldsmith,

Harry Goldwater,  
 Harry L. Gunzberger,  
 Oscar S. Hoffman,  
 William J. Holland,  
 Henry L. Lichtenstein,  
 H. J. Ling,  
 Howard Linsley,  
 E. T. McDevitt,  
 Edouard Nis,  
 John F. O'Keefe,

Henry F. Pernan,  
 Melville B. Rosenberg,  
 Nathaniel Rosencrantz,  
 Edwin W. Schrader,  
 Harry B. Slocum,  
 Frederick Siebe,  
 Arthur C. Thornton,  
 Jesse Waterman,  
 Frederick Winkelman,  
 Daniel C. Van Nostrand

## GIRLS.

Helen M. Anderson,  
Nellie Dudley,  
Belle Ellis,

Mae Kirk,  
Lillian Lamont,  
Anna J. Rasette,

May W. Shannon,  
Lucinda Sinclair,  
Kate Smyth.

## DENMAN GRAMMAR SCHOOL.

## MRS. MAYBORN'S CLASS.

Irma Adler,  
Ethel R. Bradshaw,  
Genevieve Baldwin,  
Sadie H. Breslauser,  
Ella M. A. Bryan,  
Bella Bettman,  
Hattie L. Brown,  
Amy J. Bigelow,  
Lucy Cotrel,  
Medora Cantrell,  
Virgia V. Deal,  
Lizzie L. Dorgan,  
Charlotte F. Dutton,  
Nellie L. Derrick,  
Elsie Emmal,  
Jennie J. Eastman,  
Minnie B. Edlefsen,  
Mabel B. Edwards,

Emily B. Frontin,  
Alice M. Flske,  
Frances R. Hanley,  
Eugenia D. Hunt,  
Ida E. Hay,  
Charlotte F. Hunt,  
Grace Haight,  
Emma M. Hartshorn,  
Margaret I. Johnston,  
Toba T. Lichtenstein,  
Edith J. White Laird,  
Rosa Loupe,  
Edna H. Lissak,  
Kate W. Keough,  
Maggie T. McDonald,  
May Murphy,  
Lulu Murphy,  
Josephine V. Moran,

Adele Morris,  
Ada Irene McAlester,  
Lizzie G. May,  
Mary E. Meany,  
Annie T. O'Brien,  
Margaret M. O'Rourke,  
Alice Florence Petterson  
Minnie Rinn,  
Eva T. Rednall,  
Agnes G. Sharkey,  
Blanche H. Stenhouse,  
Fannie Stern,  
Juliet M. Smith,  
Adelaide Smith,  
Jessie E. Twiss,  
Beckie R. Weiss,  
Anna M. Wilde.

## MRS. BAUMGARDNER'S CLASS.

Aurora F. Brignardello,  
Harriet H. Bausman,  
Alice M. Brooks,  
Laura Bates,  
Pearl Cohn,  
Sadie C. Corbus,  
Emily Cousens,  
Henrietta M. Cole,  
Charlotte A. Collison,  
Agnes Connelly,  
Elizabeth G. Curtin,  
Sallie Daingerfield,  
Irita Dennis,  
Flore C. Francfort,  
Minnie L. Garrison,  
May S. Glass,  
Jenny Hartman,

Emma E. Huntsman,  
Gussie G. Heller,  
Mary H. Holbrook,  
Florence E. Harrison,  
Mabel Hall,  
Hattie C. Loring,  
Grace M. Leavenworth,  
Florence E. Lundborg,  
Margaret A. McDonald,  
Ethel K. Morgan,  
Myra D. Mansfield,  
Eleanor M. Machin,  
Maggie A. Meany,  
Grace A. Nagel,  
Lizzie Peiser,  
Nettie M. Pike,  
Mary C. Peck,  
Mary Porter,

Annie Quigley,  
Emeline L. Roberts,  
Lillie M. Reis,  
Grace W. Rowell,  
Kate A. Redington,  
Elizabeth F. Reardon,  
May B. Randol,  
Elizabeth Richardson,  
May E. Stanyan,  
Angelita C. Strauch,  
Frankie J. Sanford,  
Bertie L. Schreeder,  
Elizabeth Ver Mehr,  
Jennie C. Wood,  
Jessie Waller,  
Jeanie B. Washburn,  
Sadie Wagner.

## REPORT OF THE SUPERINTENDENT

## FAIRMOUNT GRAMMAR SCHOOL.

Joseph Capuro,  
Joseph F. Chandler,  
James J. Clark,  
William R. Robertson,

Robert S. Shepston,  
Isabel C. Gray,  
Kate A. Howard,  
Mary F. V. Laporte,

Margaret R. Phillips,  
Agnes M. Robertson,  
Kate F. Russell,  
Kate B. Vaughn.

## FRANKLIN GRAMMAR SCHOOL.

## GIRLS.

Katie Baxter,  
Georgia Barr,  
Mary Cullinan,  
Mary Gallagher,  
Ella Hanlon,  
Josie Hopkins,  
Annie Kelly,

Emily Mollis,  
Eva Marcus,  
Mary Mursky,  
Lottie McLoughlin,  
Bessie McFadden,  
Mary Regan,  
Mary Reilly,  
Jeannette K. Fleming, 1884.

Gertie Simpson  
Sarah Thompson,  
Nellie Tierney,  
Cora Van Nostrand,  
Katie Delahunty,  
Celia Fitzgerald.

## BOYS.

George Brewer,  
Edward Farrell,  
John Gunnin,  
Louis Kelley,

John Leary,  
Edward Mullaly,  
Arthur McQuaide,  
John Keefe,

Frederick Turner,  
Charles Soper,  
Edward Sterling,  
Albert Waring.

## HAMILTON GRAMMAR SCHOOL

## N. A. WOOD, TEACHER.

## GIRLS.

Sophie Athearn,  
Julia M. Avery,  
Lillie E. Avery,  
Minnie M. Bullis,  
Ettie Bedell,  
Blanche Bates,  
Catharine McA. Crane,  
Mamie L. Cronin,  
Henrietta Everding,

Clara W. French,  
Cornelia Farrell,  
Maggie H. Gibb,  
Eliza S. Horton,  
Mary R. Halloran,  
Adelaide McColgan,  
Dora H. Medeau,  
Minnie Myer,  
Lillian E. Purdy,

Lizzie M. Peters,  
Clara E. Smith,  
Mabel Stangroom,  
Mamie L. Tower,  
Violet W. Vincent,  
Emma L. Wentworth,  
Mamie Williams,  
Ada J. Waterbury.

## BOYS.

Andrew N. Aitken,  
Aaron Brock,  
S. I. Blake,  
Harry V. Clark,

Percy Goldstone,  
G. W. Hendry.  
Alfred H. Mabie,  
Alfred Newman,

John T. Pidwell,  
Edward J. J. Rolda,  
Adolphus P. Uhl,  
Charles Wentworth.

## E. J. MORTON, TEACHER.

H. William Appiarus,  
Lewis Bannan,  
J. Clement Bates,  
Florence R. Beanston,  
Leland Stanford Boruck,  
Edward W. Brown,  
Johannah H. Bruner,  
Mattie W. Chapman,  
John E. Coffey,  
Mitchell Cohan,  
Dora Coleman,  
John T. Cooney,  
Hannah Cohn,  
Maggie G. Cosgriff,

Henry L. Day,  
Thomas R. Fitzsimmons,  
Courtland L. Goodrich,  
Henry Hugo Hartmann,  
H. Lulu Hand,  
Charles H. Isaacs,  
Lewis A. Latham,  
Jennie Levy,  
William S. Lewis,  
Cornellus E. Mahoney,  
Katie McLane,  
Frederick W. Meyers,  
Opha L. Miller,  
Ada T. M. Moffit,  
Martha Crooks,

Grant Morris,  
Katie Murphy,  
Grace T. Nutting,  
Alice O'Connell,  
Maggie E. O'Keefe,  
Tessie Packacher,  
John T. Plath,  
Waldie J. Simpson,  
May Slessinger,  
James Spiers,  
Laura M. Williams,  
Edward Wiener,  
Persee L. Peck,  
Eleanor G. Lang.

## HAYES VALLEY GRAMMAR SCHOOL.

## GIRLS.

Carrie B. Abbott,  
Sarah M. Boukofsky,  
Katie E. Burke,  
Sarah W. Caro,  
Mary E. Dolan,  
Mamie A. Dozier,  
Mamie B. Fogel,  
Mary C. Fitzgerald,  
Emma C. Gagen,

Marian E. Holmes,  
Tillie G. Hutton,  
Gussie P. Hooper,  
Blanche C. Jory,  
Lillian H. Jory,  
Leonie Kuh,  
Rose B. Korper,  
Fannie G. Kalisky,  
Lulu M. Levy,

Laura Levi,  
Clara L. Mayer,  
Bessie McAllister,  
Mamie T. O'Connor,  
Kittie T. Riordan,  
Annie L. Redington,  
Dora Silverstone,  
Maggie A. Taylor,  
Emma Wagner.

## BOYS.

Charles F. Berg,  
Albert A. Buneman,  
Albert B. Chaquette,  
James A. Delahay,  
Abe Gunzendorfer,

Joseph G. Hagarty,  
Ernest N. Jones,  
Alex. S. Jarvie,  
Otto E. Luhn,  
Charles Marks,

Temple L. Murphy,  
Otty P. O'Brien,  
Willie E. Stanford,  
Willie R. Uglov.



## LAGUNA HONDA SCHOOL.

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Louisa M. Burfeind.

---

## POINT LOBOS SCHOOL.

---

Michael Drury.

| Joseph Baloun,

| Joseph J. Mooney.

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## LINCOLN GRAMMAR SCHOOL.

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Louis Albert Larsen,  
Oscar C. Ellinghouse,  
Julius W. Morton,  
August Kroenke,  
Thomas S. Molloy,  
William W. Phillips,  
Wesley S. Reed,  
George T. Balch,  
Philip Godley,  
Vincent O'Neill,  
W. B. Jones,  
Joseph E. Hathaway,  
Frank E. O'Brien,  
Charles W. Krause,  
Irwin L. Fletcher,  
Andrew Armstrong,  
Arthur Prentice,  
Fred. G. Gantner,

William F. M. Kinney,  
B. Clifford Ireland,  
Robert A. Morrissey,  
Louis R. J. J. Baccus,  
William E. Commary,  
James Richardson,  
Harry S. Allen,  
Philip Arensberg,  
Charles L. Beck,  
James T. Clancy,  
James K. Colbert,  
Lowell A. Engley,  
John B. Fritchie,  
Frank B. Grancourt,  
Joseph O. Granville,  
James W. Husselman,  
Isadore Harris,  
Leonard H. Heynemann,

Henry T. Hicks,  
E. Forrest Mitchell,  
Walter G. Maddox,  
Frank E. McNear,  
John V. Mulloy,  
Daniel H. Owens,  
J. Brooks Palmer,  
Henry G. Phelan,  
Elmer D. Roach,  
Thomas F. Stack,  
R. Beecher Snowgrass,  
James Shimata,  
Irwin H. Strain,  
Arthur C. Turner,  
John A. Weston,  
Heber Tilden,  
Charles Whiting,

## OF COMMON SCHOOLS.

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Thomas F. Bohannon,  
Thomas D. Boardman,  
Charles H. Bryan,  
Charles Bruce,  
Harry G. Blackwood,  
Andrew S. Randall,  
John F. Cunningham,  
Frank R. Capp,  
Louis Carnes,  
Edward H. Coleman,  
Delos O. Druffel,  
Eugene L. Dutertre,  
James W. Dean,

Volney E. Ellis, Jr.,  
Waldron H. Fulton,  
Andrew J. Farren,  
Edward G. Faulkner,  
Edward D. Finley,  
James S. Geishaker,  
William Grennan,  
James W. Goodfellow,  
John J. Handley,  
Samuel Kalsky,  
Albert M. King,  
Hermann Klaher,  
Albert E. Lacour,

Walter R. Lovegrove,  
George R. McFarlan,  
James A. Nellis,  
Robert O'Connell,  
Henry H. Paulsen,  
Henry E. Poehlman,  
Edward G. Siebert,  
Ulysses S. Simonds,  
William E. Stevens,  
James Tormey,  
William L. Valentine,  
George S. Williams,  
Jacob Wood.

## MISSION GRAMMAR SCHOOL.

### MISS CAHALIN'S CLASS.

#### GIRLS.

M. Lou Gillespie,  
Lulu F. Godsil,  
Lizzie S. Walker,  
Grace Lansingh,  
Fannie E. James,  
Gertie M. Lynch,  
Lena M. Torpey,  
Katie Wrede,

Lizzie E. Munier,  
Rosie A. Tranior,  
Ada Higgins,  
Agnes G. Briody,  
Lucy Brace,  
Chat. C. Patton,  
Lula C. Huntington,  
Eicula M. Warner,  
Emma Wightman,

Minnie A. DuJardin,  
Mary E. Durr,  
Eva M. Phillips,  
Ollie V. Good,  
Ida V. Cafneron,  
Hannah Neumann,  
Jennie E. Wilson,  
Bertie Weck.

#### BOYS.

John Edward Chope,  
Nelson S. Casey,  
Roane Thorpe,  
H. L. Wicknew,  
James L. Larimer,

Charles A. Peterson,  
Ralph Hathorn,  
David A. Jumper,  
John Joseph Reagan,  
Albert F. Hichborn,  
Arthur F. Barnard,

F E Benjamin,  
George C. Bornemann,  
Maurice Cavanagh,  
Ralph T. Barker,  
Frank Craig.

### MISS N. F. SULLIVAN'S CLASS.

#### GIRLS.

Josie H. Cove,  
Lily R. Ellis,  
Mary T. Tazackerly,  
Sarah A. Fitzpatrick,  
Olive L. Harper,  
Lily F. Hargear,  
Maud Latham,

Louise A. Martin,  
Mary B. McMahon,  
Louise M. McCarthy,  
Oamille R. Parker,  
Katie J. Rudolph,  
Hattie A. Son,  
Agnes M. Smith,

Lizzie Turlay,  
Minnie G. Todd,  
Belle C. Van Worner,  
Cora Wilbur,  
Eva L. White,  
Emma A. Zihn.

## REPORT OF THE SUPERINTENDENT

## BOYS.

Bennie H. Bowley,  
Frank H. Cruise,  
Louis R. Fischbeck,

James H. Gray,  
Walter E. Kropp,  
Charles A. Rutherford,  
Ernest G. Thomas.

Harry R. Willis,  
Charles J. Wentworth  
G. Derby White.

## NOE &amp; TEMPLE STREET SCHOOL.

## BOYS.

Thomas Francis Curran,

Thomas P. Duffy,  
Eugene J. McCormick,

Thomas J. Sheridan.

## GIRLS.

Lizzie C. Anthony,  
Edith R. Blake,  
Nettie Casement,  
Lizzie L. Carey,

Maggie T. Carey,  
Mary Drolette,  
Mary E. Fallon,  
Georgie J. Labadi,

Julia A. Leonard,  
Nellie L. McLane,  
Emma A. Swan,  
Katie A. Stephens.

## NORTH COSMOPOLITAN GRAMMAR SCHOOL.

## GIRLS.

Florentine E. L. Altenberg,  
Kittie Bosqui,  
Sophie Bacigalupi,  
Nora Corbett,  
Mamie E. Dowling,  
Irene Gardner,  
Alice Hanks,  
Christine Hans,

Daisy Hawks,  
Mary M. Hohenschild,  
Julie Loveland,  
Josephine Miller,  
Minnie McKinnon,  
Annie Montgomery,  
Matilde Nelson,  
Georgina A. Rebstock,

Zoe Belle Rogers,  
Ella L. Stadtfeld,  
Minnie C. Stappenback  
Edith Sherry,  
Cecilia F. Tank,  
Hortense Volkman,  
Josie C. Wayman,

## OF COMMON SCHOOLS.

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### BOYS.

Edwin Bailey,  
Edward J. Bailey,  
Oscar Ek,  
Augustine E. Houston,  
George F. Hepp,  
John Hussey,  
Albert P. Jacobs,  
William T. Medina,

Benjamin F. Noyes,  
Joseph O'Rourke,  
Charles C. Pernan,  
Albert C. Pistolesi,  
Felix A. Reynaud,  
Harry J. Rethers,  
Richard H. Rountree,  
John W. Sinclair,

Paul Schmitz,  
Sidney Shirek,  
Jules P. Tanieres,  
Carl E. Thomsen,  
Robert A. Walker,  
Allman H. White,  
August L. Zett.

### POTRERO SCHOOL.

Mamie L. Buck,  
Ellen K. Coakley,  
Emma Hare,

Adriana Holder,  
Mary F. Lawless,  
Nellie E. Penny,  
Lena E. Robertson,

William L. Dolan,  
Victor Erickson,  
Patrick O'Donnell.

### RINCON GRAMMAR SCHOOL.

Maggie G. Coghlin,  
Annie T. Conley,  
Loretta I. Doughty,  
Emma J. Dunker,  
Mamie C. Daly,  
Grace M. Ellis,  
Rebecca Fox,  
Theresa M. Gilbride,  
Ruthella Head,  
Nellie A. Bishop,  
Annie Laura Browning,  
Mary E. T. Burke,  
G. L. Teresa Collins,  
Jessie Cowan,  
Cora Eva Dithmar,  
Ellen R. Downey,  
Charlotte P. Elliott,  
Mary A. Gee,

Emma L. Hardy,  
Augusta M. Huber,  
Hattie Holtslander,  
Lillie L. Jacobson,  
Tillie King,  
Maude M. Kendall,  
Mamie McBean,  
Bertha C. Mawson,  
May Moore,  
Rosalie A. Gerlach,  
Caroline Haubensak,  
Alice M. Huber,  
Ida Sophie Hultberg,  
Minnie F. Jellinek,  
Minnie A. King,  
Winnie A. Liner,  
Caroline Sophie Malm,  
Kittie D. McDonald,

Katie B. O'Neil,  
Martha H. Ritchie,  
Florence E. Russ,  
Mollie L. Reynolds,  
Fannie R. Swan,  
Florence E. Smith,  
Tillie Silverstone,  
Maggie E. Telfer,  
Tillie M. Veeder,  
Louisa A. McElroy,  
Mollie F. McEneaney,  
Jessie Peck McLean,  
Mary E. A. McRea,  
Minnie F. Samud,  
Emma J. A. Smyth,  
Ella A. Smythe,  
Annie Josephine Ward,  
Minnie C. Weichhart,

## SOUTH COSMOPOLITAN GRAMMAR SCHOOL.

## ALBERT LYSER'S CLASS.

## BOYS.

Sydney Arner,  
Edward Brandestine,  
Willie F. Burke,  
Samuel Breslauer,  
Samuel Dannenbaum,  
Albert Ehrenpfort,  
Julius Feigenbaum,

Frank P. Goewey,  
Louis Goldstone,  
Herman Isaac,  
Irving L. Jacobi,  
Morris Klein,  
Henry Levy,  
Samuel Myer,

E. Leon Peiser,  
Edward H. Samuels,  
Christian Seitz,  
Moses L. Stern,  
Julian L. Walter,  
Harry H. Young.

## GIRLS.

May M. Bloom,  
Frances H. Brownstern  
Posey A. Burroughs,  
Josephine Cohn,  
Adele L. Cook,  
Emma A. Connolly,  
Jessie N. De Lamater,  
Rachel Feder,  
Lizzie H. Flagg,  
Blanche Fleisschacker,

Lily Geist,  
Rose Goodman,  
Ray Green,  
Ernestine Guilleman,  
Carrie Lederer,  
Florence Lehman,  
Rose Lowenthal,  
Nellie McSweeney,  
Louise Neppert,  
Emma Patek,

Daisy F. Rosener,  
Jennie Rosenblum,  
Dora J. Saalburg,  
Flora B. Schumate,  
Camilla M. Smith,  
Anna M. Wiebalk,  
Belle S. Wolf,  
Harriet B. Wolfe,  
Rachel Wolfsohn,  
Nellie Zimmerman,

## MRS. BURKE'S CLASS.

## GIRLS.

Bessie F. Adler,  
Fannie Baum,  
Sarah Bienenfeld,  
Lulu Blumenthal,  
Frida Blumenthal,  
Beatrice L. Cook,  
Rebecca Cornahrens,  
Ida M. Ehrenpfort,  
Josie H. Frank,  
Henrietta Goldstone,

Ida Greenbaum,  
Lillie Hemmer,  
Lillie E. Herzberg,  
Augusta Hock,  
Dora T. Israel,  
Estelle C. Joseph,  
Frieda C. Koster,  
Laura Camilla Klauber,  
Eda Kahn,  
Marie Lanfranchi,  
Ray L. Vidaver.

Emma M. Litzius,  
Ruby Lowenberg,  
Bertha H. Mengel,  
Selina Newman,  
Lena H. Oppenheimer,  
Emma Rosener,  
Henrietta Louise Stadtmuller  
Emma M. Scheeline,  
Leah A. Strellitz,  
Irma Triest,

## BOYS.

August H. Bjerremark,  
Berthold C. Blach,  
Daniel J. Brownstein,  
Max Cohen,  
Henry Cornahrens,  
Wilford A. Cardoza,  
Alfred I. Esberg,  
John M. Freudenberg,

Charles B. Gans,  
Charles W. Hacke,  
Christian H. Kobicke,  
John C. Meussdorffer,  
Jesse Morgenthau,  
Alvin C. Muller,  
Harry G. Poole,  
Charles A. Ritter,

Frederick Rosenfeld,  
Frederick Schmidt,  
William H. Toepke,  
George Toplitz,  
Julius Unger,  
Victor H. Wasserman,  
Herman Zimmerman.

## SPRING VALLEY GRAMMAR SCHOOL.

## GIRLS.

Nora C. Bateman,  
Caddy M. Brennan,  
Lulu H. Condon,  
Helena R. Cook,  
Mary L. Curley,  
Irene F. Everett,  
Dora A. Fallon,  
Lottie H. Hencke,  
Jennie M. Houston,

Emma H. Ludemann,  
Katie A. McGovern,  
Florence M. Neal,  
Agnes E. Norton,  
Josie C. Norton,  
Annie T. O'Gorman,  
Laura M. Redmond,  
Alice R. Reynolds,  
Clara B. Seaman,

Eva M. Sharp,  
Katie L. Sievers,  
Katy A. Thornton,  
Margaret A. Topping,  
Maria S. Wallace,  
Martha H. Weaver,  
Emily B. Wood,  
Mattie Wood.

## BOYS.

Engene H. Barker,  
Jerry J. Cudworth,  
Thomas B. Dwyer,  
Harry C. Fasset,  
Frank E. Fitzpatrick,

William C. Mahoney,  
William S. Nolan,  
Peter C. Penlecke,  
Edwin C. Phelps,  
Mark J. Ryan,

Joseph J. Sullivan.  
A. Ernest Thomson,  
Frank Vernon,  
John T. Ward,  
George P. Wetmore.

## VALENCIA GRAMMAR SCHOOL.

## GIRLS.

Emily Anderson,  
Caroline Asmussen,  
Lulu C. Arrison,  
Lulu H. Bert,  
Arline L. Bailey,  
Hettie M. Corlett,  
Maggie C. Christie,  
Gertrude Cohen,  
Mary J. DeCarteret,  
Florence W. Dornett,  
Maggie E. Doud,

Estella H. Delafield,  
Georgie S. Elliott,  
Susie M. Foster,  
Nellie Foster,  
Mary Hiester,  
Blanche Hartwell,  
Maud T. Knowlton,  
Lulu H. Krauss,  
Alice R. Ladd,  
Idella G. Linehan,  
May R. Longfellow,

Effie A. McIlralsch,  
Lillie G. McKenna,  
Laura S. Richardson,  
Lillie E. Sewell,  
Blanche E. Shay,  
Lulu M. Smith,  
Marietta Stevens,  
Almira Thompson,  
Isabelle Williams,  
Nellie B. Yates.

## REPORT OF THE SUPERINTENDENT

## BOYS.

Samuel M. Andrews,  
John C. Boyle,  
Harry R. Bostwick,  
William Conner,  
Charles Code,  
Marvin Curtis,  
Eugene L. Cutting,  
Luman S. Fisher,

Lyman L. Follet,  
William W. Griffin,  
Frederick E. Hall,  
William H. Hammer,  
Willis P. Jones,  
John V. Kerby,  
Thomas B. Lynch,  
Levi Longfellow,

John W. O'Brien,  
Victor L. O'Brien,  
Frank A. Somers,  
William D. E. Sullivan,  
Alfred De Frees Taylor,  
Daniel J. Wren,  
Elmar A. Wolfe,  
Edwin R. Zion.

## WASHINGTON GRAMMAR SCHOOL.

George C. Alferitz,  
N. A. Buyia,  
Leo J. Cosgrove,  
Henry J. Gallagher,  
William T. Hess,  
Albert Helmken,  
Ernest F. Knowderer,  
Harry M. Lichtenstein,

Fred. S. Morris,  
Edward B. Pasquale,  
Albert H. Rademaker,  
Edmund B. Radford,  
Lemuel G. Sanderson,  
Emanuel H. Schwartz,  
Emil J. P. Scherr,  
John G. Shannon,

George A. Starr,  
Irving Sturtevant,  
James F. Timney,  
George P. Tsikoores,  
Charles W. Vaughn,  
Frank B. Veasey,  
James T. Walsh.

## WEST END SCHOOL.

Lawrence Casserly,

Rosa Dwyer.

## COMMERCIAL EVENING SCHOOL.

\*James E. Long.  
\*John H. Wood,

\*Carl F. Landman,  
Louis Aaron,

James E. Collins,  
Siegfried Bestandig,

\*Since Christmas.  
Louise F. Bray,

Gussie Kelly.

## LINCOLN EVENING SCHOOL.

## W. W. DAVIDSON'S CLASS.

John Conlon,  
Edward J. Langley,  
John D. Moller,  
William R. Corbett,  
Heiman Apple,

Thomas B. Mahoney,  
John W. O'Brien,  
Henry C. Schaertzer,  
Joseph D. Teahan,  
Frank J. Hillebrand,

George W. Macanley,  
Peter Moran,  
Michael F. Sullivan,  
James D. Canning.

## MAUD HARTLEY JONES' CLASS.

Leah A. Kelley,  
Catherine F. Ward,  
Mary Walsh,  
Josey Ahern,  
Mary J. Taper,  
Albert C. Tixier,

William P. Schrader,  
Hans Peter Jensen,  
Daniel J. Daly,  
Richard Abenheim,  
Theodore Planz,  
William A. Roberts,

John Gilmour,  
Edward Brady,  
William H. O'Malley,  
David Griffith,  
Edgar L. Ormsby.

## JOHN J. DWYER'S CLASS.

F. H. Blanding,  
W. C. Ellis,  
Sheridan Forbes,  
George Foulks,

Joseph Hawkins,  
William Hawkins,  
C. A. McVey,  
R. E. Meany,

E. W. Pratt,  
Thomas Watters,  
Josephine Marrs,  
David Farrell,



## BRIDGE MEDALISTS.

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### LINCOLN GRAMMAR SCHOOL.

J. Brooks Palmer,  
Lowell A. Engley,  
Henry T. Hicks,  
Joseph Odell Granville,  
James Shimata,  
Irwin H. Strain,

Henry Poehlman,  
James A. Nellis,  
Delos O. Druffel,  
George R. McFarlan,  
Walter R. Lovegrove,  
Robert O'Connell,

Charles W. Krause  
Thomas S. Molloy  
Julius W. Morton  
George T. Balch,  
Vincent A. O'Neil.

### SOUTH COSMOPOLITAN GRAMMAR SCHOOL.

Henry Cornahrens,  
Hermann Zimmermann,

Alfred I. Esberg,  
Harry H. Young,  
William H. Toepke,

Samuel Dannenbaum  
Morris Klein.

### VALENCIA GRAMMAR SCHOOL.

Marvin Curtis,  
John C. Boyle,

Frank A. Somers,  
John V. Kerby,

Harry R. Bostwick  
John W. O'Brien.

### HAYES VALLEY GRAMMAR SCHOOL.

Alexander S. Jarvie,

Joseph G. Hagarty,

Charles Berg.

### FRANKLIN GRAMMAR SCHOOL.

Edward William Farrell,

George N. Brewer,

### CLEMENT GRAMMAR SCHOOL.

Oliver A. Harker,

Melville S. Badt,

Robert D. Cohn

### NORTH COSMOPOLITAN GRAMMAR SCHOOL.

Sidney Shirek,

Paul Schmitz,  
Allman H. White,

Carl E. Thomsen.

### SPRING VALLEY GRAMMAR SCHOOL.

Jerry J. Cudworth,

Harry C. Fassett,

George P. Wetmore.

**WASHINGTON GRAMMAR SCHOOL.**

William T. Hees,		Edmund J. Radford,		George A. Starr.
Leo J. Cosgrove,		Nicholas Buyia,		

**MISSION GRAMMAR SCHOOL.**

George C. Bornemann.		Ralph L. Hathorn,		Harry R. Willis,
		Louis R. Fishbeck		

**HAMILTON GRAMMAR SCHOOL.**

Andrew N. Altkin,		Leland S. Boruck,		Edward Wiener,
Alfred H. Mabie,		C. L. Goodrich,		M. C. Cohan,

**COLUMBIA GRAMMAR SCHOOL.**

Joseph L. Hackett,		George C. Jacobsen.
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**FAIRMOUNT PRIMARY SCHOOL.**

Joseph F. Chandler.

**'NOE & TEMPLE STREET PRIMARY SCHOOL.**

Thomas J. Sheridan.

**POTRERO PRIMARY SCHOOL.**

William L. Dolan.

## List of Schools and Teachers.

### BERNAL HEIGHTS PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
Third and Fourth.....	Prior, Philip.....	Principal.
Second, Fifth and Sixth.....	Hayden, Miss Sarah F.....	Assistant.
Seventh and Eighth.....	Cullen, Miss Louise.....	Assistant.
Seventh.....	Caldwell, Mrs. Mary.....	Assistant.

### BOYS' HIGH SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
Junior.....	Blackburn, F. A.....	Principal.
Senior and Middle.....	Mann, A. L.....	Assistant.
Senior and Middle.....	White, Wm.....	Assistant.
Middle.....	Sibley, J. M.....	Assistant.
.....	Winn, A. T.....	Assistant.
Junior.....	Templeton, M. L.....	Assistant.
Junior.....	White, T. B.....	Assistant.
Drawing.....	Cumming, David.....	Assistant.

## BROADWAY GRAMMAR SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Parker, Miss Jean.....	Principal.
First.....	Pechin, Mrs. C. E.....	Vice-Principal.
Second.....	Morrison, Miss M. E.....	Assistant.
Second.....	Haswell, Miss N. C.....	Assistant.
Third.....	Adams, Miss C. A.....	Assistant.
Third.....	Aiken, Miss A. E.....	Assistant.
Fourth.....	Beardsley, Miss E. F.....	Assistant.
Fourth.....	Pike, Miss A. E.....	Assistant.
Fifth.....	Shipman, Miss E. H.....	Assistant.
Sixth and Seventh.....	Hart, Miss L.....	Assistant.
Eighth.....	Kelly, Mrs. L.....	Assistant.
Seventh.....	Campbell, Miss R. G.....	Assistant.
Sixth.....	White, Miss W.....	Assistant.
Fourth.....	Doherty, Miss Emma.....	Assistant.
Eighth.....	Bradbury, Miss V.....	Assistant.

## BUENA VISTA PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
Fifth and Sixth.....	Chalmers, Miss A. B.....	Principal.
Third and Fourth.....	Gallagher, Miss Cora.....	Assistant.
Eighth.....	Metcalf, Miss A. H.....	Assistant.
Seventh and Eighth.....	Gallagher, Miss G.....	Assistant.

## REPORT OF THE SUPERINTENDENT

## CLEMENT GRAMMAR SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	True, Charles F.....	Principal.
First.....	Callahan, Miss M. E.....	Vice-Principal.
First and Second.....	Kelly, Miss S. E.....	Assistant.
Second.....	Earle, Miss S. H.....	Assistant.
Third.....	Bigelow, Mrs. S. H.....	Assistant.
Third.....	Fisher, Miss A. A.....	Assistant.
Second and Third.....	McFarland, Miss N. F.....	Assistant.
Fifth and Sixth.....	Corbell, Miss S. L.....	Assistant.
Fifth.....	Owen, Mrs. A. E.....	Assistant.
Seventh.....	Little, Miss L. B.....	Assistant.
Fourth.....	Lewis, Miss Frances.....	Assistant.
Sixth.....	Simms, Miss Esther.....	Assistant.
Fourth.....	Houston, Miss Jennie.....	Assistant.
Eighth.....	Barry, Miss M. E.....	Assistant.
Fourth and Eighth.....	Learned, Miss E. G.....	Assistant.
.....	Mandeville, Miss K.....	Assistant.

## CLEVELAND PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Slavan, Miss A. E.....	Principal.
Sixth.....	Duraïnd, Miss M.....	Assistant.
Fifth.....	Glidden, Miss C. A.....	Assistant.
Sixth.....	Mahoney, Miss M. J.....	Assistant.
Eighth.....	Roche, Miss A. J.....	Assistant.
Seventh.....	Moynihan, Miss N.....	Assistant.
Eighth.....	Slavan, Miss Mary H.....	Assistant.
Seventh.....	Greenan, Mrs. F.....	Assistant.
Sixth.....	Mayers, Miss E.....	Assistant.
Eighth.....	Twomey, Miss A. F. R.....	Assistant.
Eighth.....	Karatar, Miss A.....	Assistant.
Eighth.....	Davis, Mrs. F. V.....	Assistant.
Eighth.....	Murphy, Miss Julia A.....	Assistant.

## COLUMBIA GRAMMAR SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Plunkett, Mrs. C. F. ....	Principal.
First and Second.....	Cooper, Mrs. J. D. ....	Vice-Principal.
Second and Third.....	Jewett, Miss A. S. ....	Assistant.
Fifth.....	Emmons, Miss I. C. ....	Assistant.
Sixth.....	Gracier, Miss A. J. ....	Assistant.
Eighth.....	Miller, Miss M. E. ....	Assistant.
.....	Sullivan, Miss A. M. ....	Assistant.
Seventh.....	Hagarty, Miss A. M. ....	Assistant.
Fourth and Fifth.....	Hare, Miss F. ....	Assistant.
Eighth.....	Stewart, Miss V. ....	Assistant.
.....	Meyers, Mrs. L. M. ....	Assistant.
Fourth.....	McNicol, Miss Belle.....	Assistant.
Seventh and Eighth.....	Armbruster, Miss Helen M. ....	Assistant.

## COMMERCIAL SCHOOL.

	NAME.	POSITION.
.....	Leazynsky, Isidor.....	Principal
.....	Webster, Reginald H.....	Assistant.
.....	Stone, Dudley C.....	Assistant.
.....	Knowlton, Ebenezer H.....	Assistant.
.....	Smith, Miss H. T.....	Assistant.
.....	Ellis, Miss Belle.....	Assistant.

## DENMAN GRAMMAR SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Denman, James.....	Principal
First.....	Baumgardner, Mrs. E. M.....	Vice-Principal
First.....	Mayborn, Mrs. M. J.....	Assistant
Second.....	Lillie, Miss S. P.....	Assistant
Second.....	Ranken, Miss Belle.....	Assistant
Third.....	Childs, Miss K. B.....	Assistant
Third.....	Putnam, Miss C.....	Assistant
Second.....	Gallagher, Miss M. J.....	Assistant
Fourth.....	Daniels, Mrs. S. B.....	Assistant
Fourth.....	Flint, Miss A. T.....	Assistant
Third.....	McDonnell, Miss May.....	Assistant
Fourth.....	Goldsmith, Miss B.....	Assistant
Sixth.....	Danka, Miss Julia.....	Assistant
Fifth.....	Love, Mrs. J.....	Assistant
Eighth.....	Hazleton, Mrs. R. H.....	Assistant
Fifth.....	Jewell, Miss R. A.....	Assistant
Seventh.....	D'Arcy, Miss A. M.....	Assistant
Seventh.....	Devine, Miss Lena.....	Assistant

## EIGHTH STREET PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
Ungraded.....	Kinne, Mr. H. C.....	Principal
Eighth.....	Brown, Miss E. H.....	Assistant
Eighth.....	Scholl, Miss E.....	Assistant
Eighth.....	Dunn, Miss C. E.....	Assistant
.....	Rosenberg, Miss L.....	.....
.....	Simpson, Miss L.....	.....

## EMERSON PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Rightmire, Miss S. A. ....	Principal.
Eighth .....	Bannan, Miss B. C. ....	Assistant.
Sixth .....	Anderson, Miss N. H. ....	Assistant.
Seventh .....	Smiley, Miss H. M. ....	Assistant.
Seventh .....	Elder, Miss E. R. ....	Assistant.
Eighth .....	Anderson, Miss M. S. ....	Assistant.
Eighth .....	Loud, Miss E. S. ....	Assistant.
Eighth .....	Shaw, Miss Ida E. ....	Assistant.
Sixth .....	Martin, Miss Alice M. ....	Assistant.

## EVENING SCHOOLS.

GRADE OF CLASS.	NAMES.	POSITION.
.....	MacDonald, Mr. A. H. ....	Principal.
Second .....	Bodkin, Miss M. G. ....	Assistant.
Fourth .....	Crowley, Miss K. H. ....	Assistant.
Sixth and Seventh .....	Clarke, Miss K. F. ....	Assistant.
Book-keeping .....	Davidson, Mr. W. W. ....	Assistant.
Third .....	Duffy, Miss A. ....	Assistant.
First Mixed .....	Dwyer, Mr. J. J. ....	Assistant.
Department .....	Gorman, Ma. W. J. ....	Assistant.
Third .....	Hall, Miss M. ....	Assistant.
Fourth .....	Harrigan, Miss L. B. ....	Assistant.
Ungraded .....	Hare, Mrs. K. M. ....	Assistant.
Spanish .....	Herrick, Miss Kate .....	Assistant.
First .....	Jones, Mrs. Maud H. ....	Assistant.
First .....	Kennedy, Mrs. N. ....	Assistant.
Fourth .....	Krause, Miss L. G. ....	Assistant.
Second .....	McKay, Miss M. ....	Assistant.
Drawing .....	McDade, Mr. Jno. J. ....	Assistant.
Second .....	Maiers, Miss F. L. ....	Assistant.
Fifth .....	Maher, Miss J. G. ....	Assistant.
.....	Narjot, Miss Louise .....	Assistant.
Mixed .....	Ragan, Mr. D. F. ....	Assistant.
Second and Third .....	Rainey, Miss Julia .....	Assistant.
Ungraded .....	Rothganger, Mr. George .....	Assistant.
Third .....	Sprott, Miss M. ....	Assistant.
Fifth .....	Simpson, Miss L. A. ....	Assistant.
Foreign .....	Koenig, Mr. E. J. ....	Assistant.
.....	Zweybruck, Miss E. ....	Assistant.
.....	McLaughlin, Miss A. ....	Assistant.
.....	Ladd, Miss F. ....	Assistant.
Ungraded .....	Hawley, Mr. E. W. ....	Principal.
First, Second and Third .....	D'Ancona, Mr. A. A. ....	Principal.
Fourth, Fifth and Sixth .....	Derrick, Miss Alice L. ....	Assistant.



## FAIRMOUNT PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
First and Seventh .....	Fairchild, Miss H. M. ....	Principal.
Second and Third .....	Green, Mrs. A. H. ....	Assistant.
Fourth .....	Jenkins, Miss S. B. ....	Assistant.
Fifth .....	Wade, Miss N. ....	Assistant.
Seventh .....	Howard, Miss L. E. ....	Assistant.
Eighth .....	Loughran, Miss S. F. ....	Assistant.
Sixth .....	Carey, Miss A. A. ....	Assistant.
Eighth .....	McGeough, Miss Rose. ....	Assistant.
Eighth .....	Hammond, Miss E. E. ....	Assistant.
Eighth .....	Murphy, Miss M. C. ....	Assistant.

## FIVE MILE HOUSE SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
Third, Fourth, Fifth and Sixth .....	Conklin, Miss Kate .....	Principal.
Seventh and Eighth .....	Carson, Miss Lizzie .....	Assistant.

## FRANKLIN GRAMMAR SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Brooks, Mr. Eliaba.....	Principal
.....	Macdonald, Miss K.....	Vice-Principal
Second.....	Dixon, Miss B.....	Assistant.
Second.....	Templeton, Miss L. S.....	Assistant.
Third.....	Classen, Miss L. M.....	Assistant.
Third.....	Stone, Miss M.....	Assistant.
Third.....	Jones, Miss S. J.....	Assistant.
Fourth.....	Somerset, Miss O.....	Assistant.
Fourth.....	Donovan, Miss E.....	Assistant.
Fifth.....	Cline, Mrs. M. J.....	Assistant.
Fifth.....	Lester, Mrs. E. F.....	Assistant.
Fourth.....	Maroney, Miss M. E.....	Assistant.
Sixth.....	Ahern, Miss M. A.....	Assistant.
Fourth.....	Parolini, Mrs. M. J.....	Assistant.
Seventh.....	Leighton, Mrs. May A.....	Assistant.
Seventh.....	McLoughlin, Miss Agnes.....	Assistant.
Fourth.....	Brogan, Mrs. K. E.....	Assistant.
Eighth.....	Bronson, Mrs. F. P.....	Assistant.
Eighth.....	McClain, Miss Katie.....	Assistant.
.....	Banks, Miss Jessie F.....	Assistant.

## GARFIELD PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	DuBois, Mrs. A. E.....	Principal
Fifth.....	Mahoney, Miss E. S.....	Assistant.
Fourth.....	Fitzsimmons, Miss K.....	Assistant.
Sixth.....	Houston, Miss M. A.....	Assistant.
Seventh.....	Hession, Miss K.....	Assistant.
Eighth.....	Woodland, Mrs. L.....	Assistant.
Eighth.....	Roche, Miss T. J.....	Assistant.
Sixth and Seventh.....	Cole, Miss L. C.....	Assistant.
Eighth.....	Cline, Miss A.....	Assistant.
Eighth.....	Brumagim, Miss J.....	Assistant.
Eighth.....	Kaplan, Miss M. E.....	Assistant.

## GIRLS' HIGH SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Swett, John.....	Principal.
.....	Rattan, Volney.....	Assistant.
Normal Class.....	Kincaid, Mrs. M. W.....	Assistant.
Middle.....	Minna, George W.....	Assistant.
Senior.....	Beales, Mrs. C. R.....	Assistant.
Senior.....	Thompson, Miss H. M.....	Assistant.
Senior.....	Jewett, Miss F.....	Assistant.
Senior.....	Atwood, Mrs. C. L.....	Assistant.
Middle.....	Hunt, Miss C. L.....	Assistant.
Middle.....	Smith, Miss Jessie.....	Assistant.
Middle.....	Hoffman, Mrs. M. L.....	Assistant.
Middle.....	Owens, Miss N. M.....	Assistant.
Senior.....	Bragg, Miss M. J.....	Assistant.
Junior.....	Clark, Mrs. D.....	Assistant.
Junior.....	Prag, Mrs. M.....	Assistant.
Junior.....	Thurton, Miss S. E.....	Assistant.
Junior.....	Elliott, Miss K.....	Assistant.
Junior.....	Soule, Miss M. L.....	Assistant.
Junior.....	Cox, Miss M.....	Assistant.

## GRANT PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Stincen, Miss A. M.....	Principal.
Fifth.....	Earle, Miss C. B.....	Assistant.
Fifth.....	Coleman, Miss F. E.....	Assistant.
Sixth.....	Gavigan, Miss A. E.....	Assistant.
Seventh.....	Hamilton, Mrs. C. L.....	Assistant.
Eighth.....	Walsh, Miss M. T.....	Assistant.
Seventh.....	Harby, Miss R.....	Assistant.
Eighth.....	Meador, Miss E. L.....	Assistant.
Eighth.....	McDonnell, Miss Louise.....	Assistant.
Eighth.....	Summerfield, Miss A.....	Assistant.
Eighth.....	Meyer, Miss R.....	Assistant.
Eighth.....	Greene, Miss Floride.....	Assistant.
Eighth.....	Sutherland, Miss A. E.....	Assistant.

## GREENWICH STREET PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Trask, Mrs. A. S. ....	Principal.
Fifth.....	Evans, Miss J. C. ....	Assistant.
Fifth.....	Galloway, Miss M. S. ....	Assistant.
Sixth.....	Martin, Miss Ada .....	Assistant.
Sixth.....	Connolly, Mrs. J. J. ....	Assistant.
Seventh.....	Wettig, Miss Anna .....	Assistant.
Seventh.....	Moore, Miss M. ....	Assistant.
Eighth.....	Stewart, Mrs. F. A. ....	Assistant.
Eighth.....	Fay, Miss Rose .....	Assistant.
Eighth.....	Hanlon, Miss Louise .....	Assistant.
Eighth.....	Wright, Mrs. A. E. ....	Assistant.
Eighth.....	Rowe, Miss M. M. ....	Assistant.
Department Class.....	Kennedy, Miss A. M. ....	Assistant.

## GOLDEN GATE PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Cushing, Miss E. ....	Principal.
Fifth.....	Tompkins, Miss C. A. B. ....	Assistant.
Sixth.....	Wiseman, Miss M. ....	Assistant.
Seventh.....	Fairweather, Miss H. ....	Assistant.
Eighth.....	Bonnelli, Mrs. E. ....	Assistant.
Eighth.....	Gannon, Miss M. F. ....	Assistant.
Eighth.....	Franklin, Miss F. ....	Assistant.
Eighth.....	Wheeler, Mrs. J. D. ....	Assistant.
Seventh.....	McNamara, Miss A. ....	Assistant.
Eighth.....	Johnson, Miss A. M. ....	Assistant.

## HAIGHT PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Haswell, Miss M. ....	Principal.
Fifth.....	Jacob, Miss C. ....	Assistant.
Fifth.....	Sweeney, Miss C. ....	Assistant.
Sixth.....	Bodwell, Miss E. ....	Assistant.
Sixth.....	Herndon, Miss A. C. ....	Assistant.
Seventh.....	Miller, Miss S. E. ....	Assistant.
Seventh.....	Spalding, Miss H. ....	Assistant.
Eighth.....	Nelson, Miss A. ....	Assistant.
Eighth.....	Goggin, Miss E. M. ....	Assistant.
Eighth.....	Lynch, Miss Josie. ....	Assistant.
Fifth.....	Brown, Miss J. R. ....	Assistant.

## HAMILTON GRAMMAR SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Robertson, Wm. A. ....	Principal.
.....	Wood, Mrs. N. A. ....	Vice-Principal.
First.....	Morton, Miss E. J. ....	Assistant.
Second.....	Baldwin, Miss N. S. ....	Assistant.
Second.....	Strauss, Miss Ida R. ....	Assistant.
Third.....	Stallman, Miss N. C. ....	Assistant.
Third.....	Bunker, Miss E. E. ....	Assistant.
Third.....	Wentworth, Miss M. A. ....	Assistant.
Fourth.....	Steele, Mrs. M. E. ....	Assistant.
Fourth.....	Crowley, Miss L. E. ....	Assistant.
Fourth.....	Sisson, Mrs. C. M. ....	Assistant.
Fourth.....	Langstadter, Miss Pauline. ....	Assistant.
Fifth.....	Tierman, Miss A. E. ....	Assistant.
Fifth.....	Mathieson, Miss Grace. ....	Assistant.
Ungraded.....	Bagnall, John. ....	Assistant.
.....	Horton, Miss Marie. ....	Assistant.

## HAYES VALLEY GRAMMAR SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Brown, George.....	Principal.
First.....	Itsel, A. J.....	Vice-Principal.
First and Second.....	Reynolds, Mrs. F. E.....	Assistant.
Second.....	Lipman, Miss M. E.....	Assistant.
Second.....	Templeton, Miss O. A.....	Assistant.
Third.....	Huntley, Miss A. M.....	Assistant.
Third.....	O'Brien, Miss K.....	Assistant.
Third.....	McFadden, Miss K.....	Assistant.
Fourth.....	Armstrong, Miss Nellie.....	Assistant.
Fourth.....	Prescott, Miss D. S.....	Assistant.
Fifth.....	Barry, Miss M.....	Assistant.
Fifth.....	Bibb, Miss A. H.....	Assistant.
Fifth.....	Mengea, Miss O. A.....	Assistant.
Sixth.....	Horton, Miss S. A.....	Assistant.
Sixth.....	Lobby, Miss G. F.....	Assistant.
Sixth.....	Wickman, Miss Emma.....	Assistant.
Seventh.....	Murphy, Miss N.....	.....
.....	Fairchild, Miss C. S.....	.....
.....	Simon, Mrs. M.....	.....

## HAYES VALLEY PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Stowell, Miss P. M.....	Principal.
Fifth.....	Flynn, Miss M. E.....	Assistant.
Sixth.....	McConnell, Miss Q. O.....	Assistant.
Seventh.....	Dwyer, Mrs. M.....	Assistant.
Seventh.....	Fagan, Miss M. J.....	Assistant.
Eighth.....	Boukofsky, Miss Rebecca.....	Assistant.
Eighth.....	Boyle, Miss S. J.....	Assistant.
Eighth.....	Fay, Miss M. A.....	Assistant.
Eighth.....	Kewin, Miss J. E.....	Assistant.
Eighth.....	Curtis, Miss Corinna.....	Assistant.
Eighth.....	Anderson, Mrs. A. B.....	Assistant.
.....	Ewing, Miss Nellie.....	Assistant.

## REPORT OF THE SUPERINTENDENT

## IRVING PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Barlow, Miss Carrie B. ....	Principal
Sixth .....	Rich, Miss Eliza .....	Assistant
.....	Wing, Miss Florence D. ....	Assistant
Seventh .....	Doran, Miss M. E. ....	Assistant
.....	Cooney, Miss Ellen .....	Assistant
Eighth .....	Barber, Miss Emma J. ....	Assistant
.....	McCarty, Miss E. ....	Assistant
Eighth .....	McVerry, Miss M. ....	Assistant
Sixth .....	Bray, Miss L. F. ....	Assistant
Fifth .....		

## JACKSON STREET EXPERIMENTAL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Van Den Burgh, Miss F. ....	Principal

## LAGUNA HONDA SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
First, Second, Third, Fourth, Fifth.	Dwyer, James .....	Principal
Sixth, Seventh and Eighth .....	Wolfe, Miss L. E. ....	Assistant

## LINCOLN GRAMMAR SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Wilson, James K. ....	Principal.
First.....	Hamilton, James T. ....	Vice-Principal.
First.....	Lambert, Daniel.....	Vice-Principal.
First.....	Forbes, Miss Jennie A. ....	Assistant.
Second.....	McKown, Mrs. M. E. ....	Assistant.
Second.....	O'Neal, Mrs. M. L. ....	Assistant.
Second.....	Wilson, Miss S. M. ....	Assistant.
Second.....	Bowman, Levi.....	Assistant.
Third.....	Patterson, Miss I. ....	Assistant.
Third.....	O'Rourke, Miss M. ....	Assistant.
Third.....	Jacobs, Miss E. ....	Assistant.
Third.....	Hucks, Miss A. E. ....	Assistant.
Third.....	Shea, Miss M. T. ....	Assistant.
Fourth.....	Palmer, Mrs. A. C. ....	Assistant.
Fourth.....	English, Miss R. F. ....	Assistant.
Fourth.....	Morgan, Miss R. E. ....	Assistant.
Fourth.....	Soule, Miss F. L. ....	Assistant.
Fourth.....	Cornell, Miss E. L. ....	Assistant.
Fourth.....	Ryder, Miss L. E. ....	Assistant.
Fifth.....	Dorsey, Mrs. F. L. ....	Assistant.
Fifth.....	Cullen, Miss L. R. ....	Assistant.
Sixth.....	Crawford, Mrs. J. ....	Assistant.
Fifth.....	Chalmers, Mrs. C. ....	.....
.....	Hobe, Miss S. A. ....	.....

## LINCOLN PRIMARY SCHOOL.

GRADE OF CLASS.	NAME	POSITION.
.....	Manning, Miss Agnes M. ....	Principal.
Fourth.....	Roper, Miss M. A. ....	Assistant.
Fifth.....	Hartmeyer, Mrs. L. A. ....	Assistant.
Fifth.....	Shaw, Mrs. B. A. ....	Assistant.
Sixth.....	Hunt, Miss A. L. ....	Assistant.
Fifth.....	Morse, Miss G. C. ....	Assistant.
Seventh.....	Lynch, Miss A. E. ....	Assistant.
Eighth.....	Schendell, Miss Ada.....	Assistant.
Seventh.....	Provost, Miss L. E. ....	Assistant.
Seventh.....	McLaughlin, Miss Kate.....	Assistant.
Seventh.....	Hackett, Mrs. E. S. ....	Assistant.
Eighth.....	McCarty, Miss Tillie.....	Assistant.
Eighth.....	Curry, Miss Maggie.....	Assistant.
Eighth.....	Keating, Miss M. E. ....	Assistant.
Eighth.....	Curtis, Miss J. F. ....	Assistant.
Eighth.....	Doyle, Miss L. E. ....	Assistant.
Seventh.....	Burnham, Miss Lulu.....	Assistant.
Eighth.....	Kraus, Miss S. ....	Assistant.
Eighth.....	Crowley, Miss E. H. ....	Assistant.
Eighth.....	Smith, Miss M. A. ....	Assistant.
Eighth.....	McLoy, Miss Bessie.....	Assistant.
Eighth.....	Day, Miss E. A. ....	Assistant.
Sixth.....	Fortier, Miss Rose.....	Assistant.
Eighth.....	Carter, Miss Susie E. ....	Assistant.



## LOBOS AVENUE SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
Fifth and Sixth.....	Goldsmith, Miss E.....	Principal.
Second, Third and Fourth.....	Traynor, Miss M. E.....	Assistant.
Seventh and Eighth.....	Klink, Miss J. S.....	Assistant.
Eighth.....	Goldman, Miss J. E.....	Assistant.

## LOMBARD STREET SCHOOL.

GRADE OF CLASS..	NAME.	POSITION.
First, Second, Third and Fourth..	Code, Mrs. E. S.....	Principal.
Eighth.....	Semlar, Miss Belle.....	Assistant.
Eighth.....	Littlefield, Miss N. A.....	Assistant.

## LONGFELLOW PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION
.....	Smith, Miss Jennie.....	Principal.
Fifth.....	Doran, Miss J. A.....	Assistant.
Fifth.....	Silver, Mrs. M.....	Assistant.
Sixth.....	Glennon, Miss I.....	Assistant.
Sixth.....	Crowley, Miss M. E.....	Assistant.
Seventh.....	Sleeper, Miss M.....	Assistant.
Sixth.....	Chase, Miss E.....	Assistant.
Seventh.....	Lewis, Miss J.....	Assistant.
Seventh and Eighth.....	Brady, Miss E. E.....	Assistant.
Eighth.....	Proole, Mrs. E. M.....	Assistant.
Eighth.....	Bigley, Miss J.....	Assistant.
Eighth.....	Smyth, Miss M.....	Assistant.
Eighth.....	Fleury, Miss C.....	Assistant.
Eighth.....	Curry, Miss M. E.....	Assistant.
Eighth.....	McGuire, Miss M.....	Assistant.

# OF COMMON SCHOOLS.

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## MISSION GRAMMAR SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Craven, Mrs. N. R. ....	Principal.
First.....	Cahalin, Miss G. ....	Vice-Principal.
First.....	Sullivan, Miss N. F. ....	Assistant.
Second.....	Patton, Miss J. R. ....	Assistant.
Second.....	Madden, Miss M. ....	Assistant.
Second and Third .....	Baker, Mrs. F. E. ....	Assistant.
Third.....	Sullivan, Miss N. G. ....	Assistant.
Third.....	Hillman, Miss J. C. ....	Assistant.
Third.....	Collins, Miss M. E. ....	Assistant.
Fourth.....	Harper, Miss Jeannette .....	Assistant.
Fourth.....	Gallagher, Miss A. M. ....	Assistant.
Fourth.....	Macaulay, Miss Sarah.....	Assistant.
Fourth.....	Clark, Miss Lottie K. ....	Assistant.
Fifth.....	Colby, Miss Alice E. ....	Assistant.
Fifth.....	Robertson, Miss M. J. ....	Assistant.

## MISSION PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Walker, Mrs. M. H. ....	Principal.
Sixth.....	Lundt, Miss J. C. ....	Assistant.
Seventh.....	Sullivan, Miss N. M. ....	Assistant.
Seventh.....	Harrigan, Miss Josie .....	Assistant.
Eighth.....	Varney, Mrs. E. H. E. ....	Assistant.
Seventh.....	McGreevey, Miss E. J. ....	Assistant.
Eighth.....	Ingram, Mrs. V. C. ....	Assistant.
Eighth.....	Belding, Mrs. M. L. ....	Assistant.
Eighth.....	Robinett, Miss Minna. ....	Assistant.
Eighth.....	Renwick, Miss Louise .....	Assistant.
Eighth.....	Keady, Miss M. T. ....	Assistant.
Eighth.....	Smith, Miss M. J. ....	Assistant.
Eighth.....	Casey, Miss M. ....	Assistant.

## MOULDER SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Ciprico, Miss Ella L. ....	Principal.
Sixth .....	Gilmore, Miss F. A. ....	Assistant.
Seventh .....	Duncan, Miss C. L. ....	Assistant.
Seventh .....	Folsom, Miss S. A. ....	Assistant.
Eighth .....	Hefron, Miss Nellie L. ....	Assistant.
Eighth .....	Laird, Miss Katie .....	Assistant.
Eighth .....	Chase, Miss Lalla R. ....	Assistant.
Eighth .....	Scheier, Miss Hattie. ....	Assistant.
Eighth .....	Bristol, Miss Maud K. ....	Assistant.

## NOE AND TEMPLE STREET PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Davidson, Mr. R. P. ....	Principal.
First and Second .....	Coles, Miss Ida E. ....	Assistant.
Third .....	Hawley, Miss M. E. ....	Assistant.
Fourth .....	Benson, Miss A. E. ....	Assistant.
Fifth .....	Turner, Miss M. ....	Assistant.
Fifth .....	Spear, Cora L. ....	Assistant.
Seventh .....	Ashmead, Miss E. R. ....	Assistant.
Sixth and Seventh .....	Louderback, Miss L. ....	Assistant.
Eighth .....	Bragg, Miss Adah .....	Assistant.
Eighth .....	Bragg, Miss Lizzie .....	Assistant.
Eighth .....	Davidson, Mrs. M. ....	Assistant.
Eighth .....	Burnham, Miss C. ....	.....

## NORTH COSMOPOLITAN GRAMMAR SCHOOL.

GRADE OF CLASS.	NAME	POSITION.
.....	Kennedy, Miss Kate .....	Principal.
First.....	Levinson, Miss Rose.....	Assistant.
First and Second.....	Smith, Miss V. E.....	Assistant.
Second.....	Campbell, Miss A.....	Assistant.
Second and Third .....	Boyle, Miss M.....	Assistant.
Third.....	Lindberg, Miss E. U.....	Assistant.
Third.....	Selling, Miss Eugenie.....	Assistant.
Fourth.....	Sullivan, Miss T. M.....	Assistant.
Fourth.....	Lalande, Miss Alice.....	Assistant.
Fourth.....	Hanchette, Mrs. E. A.....	Assistant.
Fourth.....	Morse, Miss Caro.....	Assistant.
Fifth.....	Cole, Miss M. A.....	Assistant.
Sixth.....	Williams, Miss K.....	Assistant.

## OCEAN HOUSE SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
Ungraded .....	Delay, Dan'l J.....	Principal.

## PACIFIC HEIGHTS GRAMMAR SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
First and Second.....	Cooke, Miss Hannah .....	Principal
Second.....	Templeton, Miss L. ....	Assistant
Third.....	Parker, Miss R. S. ....	Assistant
Fourth.....	Donnelly, Miss S. ....	Assistant
Fourth.....	Elliott, Miss M. ....	Assistant
Fourth.....	Dudley, Miss A. J. ....	Assistant
Fifth.....	Dworzazek, Miss B. ....	Assistant
Sixth.....	Thompson, Miss N. ....	Assistant
Seventh.....	Cortery, Miss M. ....	Assistant
Eighth.....	Luchsinger, Miss Annie .....	Assistant
Eighth.....	Page, Miss Delia E. ....	Assistant
Eighth.....	Loughlin, Miss Daisy .....	Assistant
Third, Sixth, Seventh and Eighth.....	Series, Mrs. Julia .....	Assistant

## POINT LOBOS SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
First and Sixth.....	Catlin, Miss A. G. ....	Principal
Second, Fourth, Seventh & Eighth.....	Baker, Mrs. S. C. ....	Assistant
Eighth.....	Meighan, Miss Kate .....	Assistant

## POTRERO PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
First and Second.....	Edwards, William H.....	Principal.
Third and Sixth.....	Minor, Miss G. D.....	Assistant.
Fourth.....	Hawes, Miss S. E.....	Assistant.
Fifth.....	Casey, Miss K. F.....	Assistant.
Sixth.....	Kean, Miss A. M.....	Assistant.
Seventh.....	Maloney, Miss K. A.....	Assistant.
Eighth.....	Ephraim, Miss A.....	Assistant.
Eighth.....	Madden, Miss M. C.....	Assistant.
Eighth.....	Reynolds, Miss M. B.....	Assistant.
Eighth.....	Michenor, Mrs. M. E.....	

## POWELL STREET PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
Fifth.....	Robertson, Miss Margery.....	Principal.
Sixth.....	Stebbins, Miss M. G.....	Assistant.
Sixth and Seventh.....	Smith, Miss S. N.....	Assistant.
Seventh.....	O'Malley, Miss Addie.....	Assistant.
Seventh and Eighth.....	Solomon, Miss M.....	Assistant.
Eighth.....	Webster, Miss S. A.....	Assistant.
Eighth.....	Newhall, Mrs. C.....	Assistant.
Eighth.....	Featherly, Miss S. F.....	Assistant.
Eighth.....	Calhoun, Miss J.....	Assistant.
Eighth.....	Sallisbury, Miss M. A.....	Assistant.
Eighth.....	Featherly, Miss H.....	Assistant.
Eighth.....	Saunders, Miss J.....	Assistant.

## READING PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
	Deane, Miss M. ....	Principal.
Fourth .....	Fenton, Mrs. B. ....	Assistant.
Fifth .....	Selling, Miss Nathalie .....	Assistant.
Sixth .....	Kervan, Miss Ida. ....	Assistant.
Sixth .....	Davies, Miss T. ....	Assistant.
Seventh .....	Clayton, Miss Ida. ....	Assistant.
Seventh .....	Cherry, Miss Addie. ....	Assistant.
Eighth .....	Chappelle, Miss Emily .....	Assistant.
Eighth .....	Martin, Miss F. ....	Assistant.
Eighth .....	Stegs, Miss M. ....	Assistant.
Seventh .....	Stone, Miss E. ....	Assistant.
Eighth .....	Lake, Miss M. ....	Assistant.
Eighth .....	Melrose, Mrs. H. ....	Assistant.

## RINCON GRAMMAR SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
	Cleveland, Miss E. A. ....	Principal.
First .....	Stowell, Miss M. E. ....	Assistant.
First .....	Robertson, Miss A. C. ....	Assistant.
Second .....	Donnelly, Miss M. E. ....	Assistant.
Second .....	St John, Mrs. H. A. ....	Assistant.
Third .....	Dore, Miss A. M. ....	Assistant.
Third .....	Hart, Miss Christine. ....	Assistant.
Third .....	Hart, Miss Pauline. ....	Assistant.
Fourth .....	Varney, Miss Mary. ....	Assistant.
Fourth .....	Donnelly, Miss Louise. ....	Assistant.
Fourth .....	Smith, Miss A. G. ....	Assistant.
Eighth .....	Joseph, Mrs. S. N. ....	Assistant.
Eighth .....	Phelps, Mrs. J. H. ....	Assistant.

## SANCHEZ STREET PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POTITION.
First and Second.....	Banning, Mrs. F. A.....	Principal.
Second.....	Moore, Mrs. M. E.....	Assistant.
Third.....	Peck, Mrs. A. E.....	Assistant.
Fourth.....	Goldsmith, Miss A.....	Assistant.
Fifth and Sixth.....	Johnston, Miss J.....	Assistant.
Sixth.....	Graham, Miss L. M.....	Assistant.
Seventh.....	Sykes, Mrs. J. N.....	Assistant.
Seventh and Eighth.....	Crocker, Miss M. J. C.....	Assistant.
Eighth.....	Plummer, Miss A.....	Assistant.
Eighth.....	Simonsen, Miss B.....	Assistant.
Eighth.....	Gallagher, Miss E.....	Assistant.

## SHOTWELL STREET PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
Fifth.....	Hill, Miss A. A.....	Principal.
Fifth and Sixth.....	Carlisle, Miss E. M.....	Assistant.
Sixth.....	Hassen, Miss Kate M.....	Assistant.
Seventh.....	Magner, Miss M.....	Assistant.
Seventh and Eighth.....	Johnson, Miss M. J.....	Assistant.
Eighth.....	Robinet, Miss M.....	Assistant.
Eighth.....	Williamson, Miss E. L.....	Assistant.
Eighth.....	Lewis, Miss J. C.....	Assistant.
Eighth.....	Kollmeyer, Miss K. A.....	Assistant.



## SOUTH COSMOPOLITAN GRAMMAR SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
First.....	Herbst, Mr. A.....	Principal.
First.....	Burke, Mrs. C. K.....	Vice-Principal.
Second.....	O'Donoghue, Mr. M. F.....	Vice-Principal.
Second.....	O'Leary, Miss K. E.....	Assistant.
Second.....	McColgan, Miss K. F.....	Assistant.
Third.....	O'Loughlin, Miss N.....	Assistant.
Third.....	Phillips, Miss H.....	Assistant.
Third.....	Fairchild, Miss M.....	Assistant.
Third.....	O'Brien, Miss Julia.....	Assistant.
Fourth.....	Goldstein, Miss A.....	Assistant.
Fourth.....	Shewar, Miss F. M.....	Assistant.
Fourth.....	Tiedemann, Miss D.....	Assistant.
Fourth.....	Miley, Miss A.....	Assistant.
Fourth.....	Hitchcock, Miss H. M.....	Assistant.
Fifth.....	Foster, Mrs. E.....	Assistant.
Fifth.....	Zweybruck, Miss A.....	Assistant.
Sixth.....	Clarence, Henry.....	Assistant.
Sixth.....	Von Buchholtz, Miss M.....	Assistant.
Seventh.....	Wideman, Doctor J.....	Assistant.
Seventh.....	Gerichten, Mrs. J. E.....	Assistant.
Third.....	Bigelow, Mrs. C. J.....	Assistant.

## SOUTH COSMOPOLITAN PRIMARY SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
Third.....	Castelhun, Miss M. A.....	Principal.
Third.....	McNear, Miss L. C.....	Assistant.
Fourth.....	Garland, Miss C.....	Assistant.
Fourth.....	Banner, Miss Bessie.....	Assistant.
Fourth.....	Heinberg, Miss L.....	Assistant.
Fifth.....	Mury, Miss Lili.....	Assistant.
Fifth.....	Unger, Miss Annie.....	Assistant.
Sixth.....	Stanford, Miss Belle.....	Assistant.
Seventh.....	Carter, Miss R. T.....	Assistant.
Sixth.....	Henicke, Miss Emma.....	Assistant.
Seventh.....	Martin, Miss Emille.....	Assistant.
Eighth.....	Roberts, Miss M. E.....	Assistant.
Eighth.....	Mooney, Miss Fanny.....	Assistant.
Eighth.....	Steele, Mrs. M.....	Assistant.
Eighth.....	Bannan, Miss M.....	Assistant.
Eighth.....	Hoppe, Miss M.....	Assistant.
Sixth.....	Tompkins, Miss E.....	Assistant.

# OF COMMON SCHOOLS.

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## SOUTH END SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
First, Second and Third.....	Scherer, Miss M. A.....	Principal.
Fourth, Fifth, Sixth and Seventh..	Detkin, Miss L. F.....	Assistant.
Eighth.....	Keep, Miss Hattie E.....	Assistant.
.....	Forrester, Miss A. M.....	.....

## SOUTH SAN FRANCISCO SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
First and Second .....	Lyser, Albert.....	Principal.
Second and Fourth.....	Stone, Wm W.....	Assistant.
Third.....	Mallory, Miss Ida R.....	Assistant.
Fourth and Fifth.....	Ellis, Miss Minora S.....	Assistant.
Fifth.....	McGuire, Miss Blanche A.....	Assistant.
Sixth.....	Flaherty, Mrs. Belle.....	Assistant.
Sixth and Seventh.....	Grant, Miss Ellen G.....	Assistant.
Seventh.....	O'Brien, Miss Annie.....	Assistant.
Eighth.....	Barrows, Miss Annie.....	Assistant.
.....	Karsky, Miss Sarah.....	Assistant.
Fourth and Eighth.....	Greene, Mrs. Kate M.....	Assistant.
.....	Garness, Miss Emma F.....	Assistant.
.....	Piper, Miss Lily K.....	Assistant.

## REPORT OF THE SUPERINTENDENT

## SPRING VALLEY GRAMMAR SCHOOL.

GRADE OF CLASS.	NAME.	POSITION.
.....	Anderson, J. W. ....	Principal.
First.....	Short, Miss J. B. ....	Assistant.
Second.....	Taylor, Mrs. A. C. ....	Assistant.
Third.....	Gregg, Miss A. C. ....	Assistant.
Fourth.....	Harrington, Miss A. S. ....	Assistant.
Fifth.....	Blackstaff, Miss M. D. ....	Assistant.
Sixth.....	Canham, Miss M. J. ....	Assistant.
Seventh.....	Thompson, Miss H. M. ....	Assistant.
Eighth.....	Wright, Mrs. M. ....	Assistant.
Ninth.....	Bonnard, Miss M. ....	Assistant.
Tenth.....	Boland, Miss J. M. ....	Assistant.
Eleventh.....	Fischer, Miss Jennie. ....	Assistant.
Twelfth.....	Hough, Mrs. S. E. ....	Assistant.
Thirteenth.....	Raclet, Miss V. M. ....	Assistant.
Fourteenth.....	Shea, Miss A. B. ....	Assistant.
Fifteenth.....	Unger, Miss Rachel.....	.....

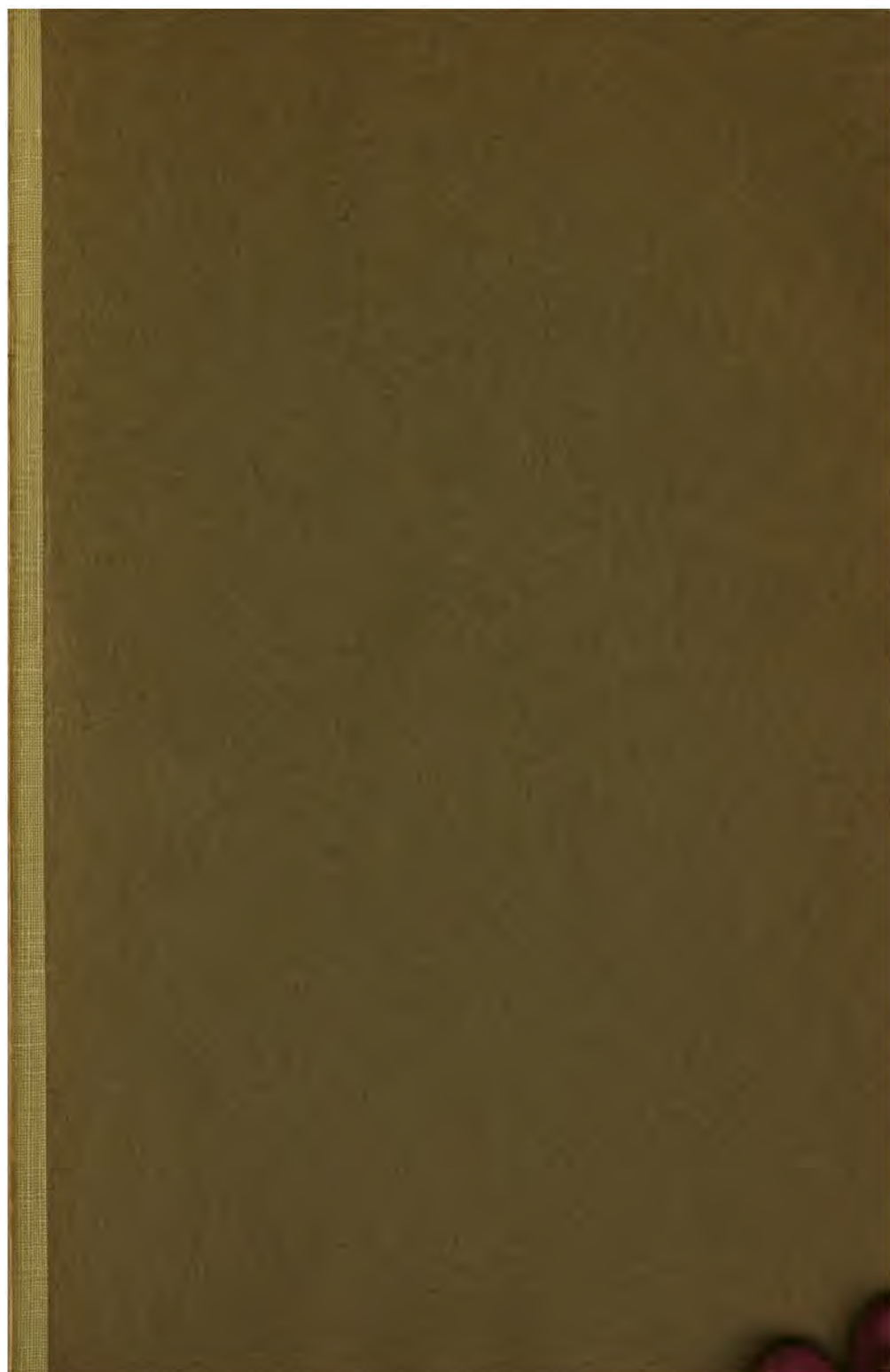
## SPRING VALLEY PRIMARY SCHOOL.

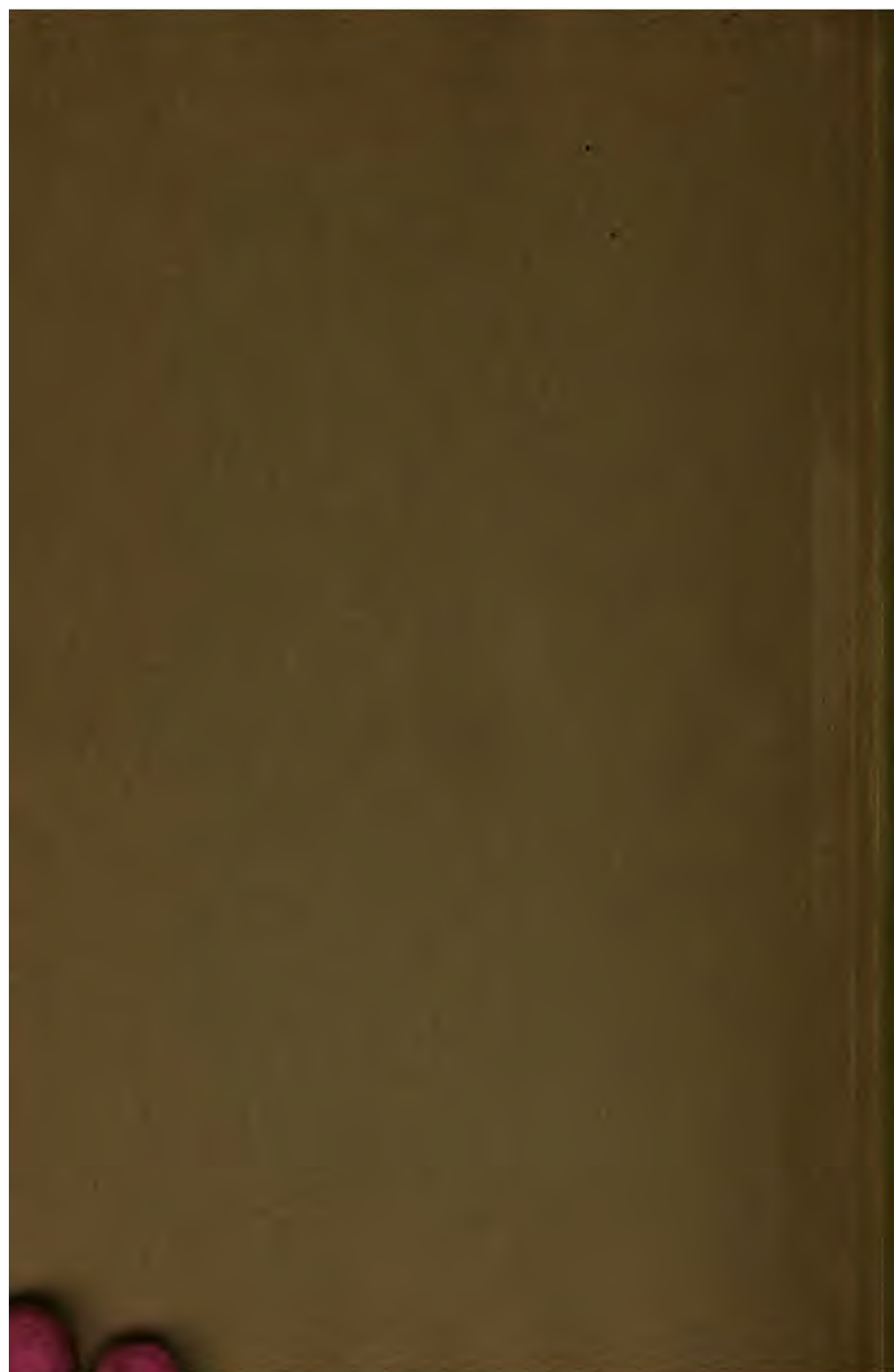
GRADE OF CLASS.	NAME.	POSITION.
.....	Hurley, Miss J. M. A. ....	Principal.
First.....	Carson, Miss M. E. ....	Assistant.
Second.....	Wool, Miss H. L. ....	Assistant.
Third.....	Joselyn, Miss A. M. ....	Assistant.
Fourth.....	Harrigan, Miss M. A. ....	Assistant.
Fifth.....	O'Brien, Miss M. ....	Assistant.

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